CLERK'S COPY.

TRANSCRIPT OF RECORD

SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1940

No. 564

GUY T. HELVERING, COMMISSIONER OF INTERNAL REVENUE, PETITIONER

vs.

OREGON MUTUAL LIFE INSURANCE COMPANY

ON WRIT OF CERTIORARI TO THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE NINTH CIRCUIT

PETITION FOR CERTIORARI FILED NOVEMBER 9, 1940
CERTIORARI GRANTED NOVEMBER 12, 1940

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No. 9318

United States

Circuit Court of Appeals

For the Ninth Circuit.

COMMISSIONER OF INTERNAL REVENUE,
Petitioner,

vs.

OREGON MUTUAL LIFE INSURANCE COMPANY,
Respondent.

Transcript of the Record

Upon Petition to Review Decisions of the United States Board of Tax Appeals

PARKER PRINTING COMPANY, 545 SANSOME STREET, SAN FRANCISCO

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[Clerk's Note: When deemed likely to be of an important nature, errors or doubtful matters appearing in the original certified record are printed literally in italic; and, likewise, cancelled matter appearing in the original certified record is printed and cancelled herein accordingly. When possible, an omission from the text is indicated by printing in italic the two words between which the omission seems to occur.]

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APPEARANCES

For Taxpayer:
WM. J. PIEPENBRINK, C. P. A.,
WM. M. BULLITT, Esq.

For Comm'r:
JOHN W. PIGG, Esq.,
WALTER W. MAHON, Esq.

Docket No. 85182

OREGON MUTUAL LIFE INSURANCE CO.,
Petitioner,

vs.

COMMISSIONER OF INTERNAL REVENUE,
Respondent.

DOCKET ENTRIES

1936

June 5—Petition received and filed. Taxpayer notified. (Fee paid)

" 5—Copy of petition served on General Counsel.

July 20—Answer filed by General Counsel.

" 23—Copy of answer served on taxpayer.

1937

May 7—Hearing set beginning July 6, 1937 in Portland, Oregon.

1937

July 8—Hearing had before Mr. Arundell, Div. 7 on merits. Submitted. Consolidated with docket 88299. Appearance of Wm. M. Bullitt filed. Petitioner's brief due 9/15/37—respondent's 10/15/37, reply 11/5/37. Called July 6, 1937.

Aug. 4—Transcript of hearing of July 8, 1937 filed.

1938

May 23—Motion for leave to file the attached brief filed by taxpayer. 5/23/38 granted.

" 23—Brief filed by taxpayer.

" 24—Copy of motion and brief served on General Counsel.

June 22—Brief filed by General Counsel.

Aug. 3—Request for findings of fact filed by taxpayer. 8/12/38 copy served.

" 12—Order granting extension to file reply brief entered.

" 12—Reply brief filed by taxpayer.

" 12—Copy of order and reply brief served on General Counsel.

1939

Jan. 4—Memorandum findings of fact and opinion rendered, C. R. Arundell, Div. 7. Decision will be entered under Rule 50.

Mar. 24—Computation of deficiency filed by General Counsel.

" 28—Hearing set April 12, 1939 on settlement.

1939

Apr. 10—Consent to settlement filed by taxpayer.
" 13—Decision entered, C. R. Arundell, Div. 7.
June 9—Agreed motion to vacate decisions filed.
" 9—Stipulation as to deficiency filed.
" 12—Order that the decision of 4/13/39 be vacated and decision entered, C. R. Arundell, Div. 7.
Aug. 15—Petition for review by U. S. Circuit Court of Appeals (9) with assignments of error filed by General Counsel.
" 24—Proof of service filed. (Attorney)
Sep. 6—Proof of service filed. (Taxpayer) [1*]
" 6—Statement of evidence lodged.
" 6—Notice of lodgement of statement of evidence filed by General Counsel—hearing 9/20/39.
" 6—Agreed praecipe filed.
" 19—Agreed statement of evidence lodged.
" 19—Agreed statement of evidence approved and ordered filed.
" 19—Agreed amended praecipe filed.
" 21—Copy of order from the 9th Circuit extending the time to Oct. 2, 1939 to complete and transmit record filed. [2]

*Page numbering appearing at foot of page of original certified Transcript of Record.

APPEARANCES

For Taxpayer:
WM. J. PIEPENBRINK, C. P. A.,
WM. M. BULLITT, Esq.,

For Comm'r:
JOHN H. PIGG, Esq.,
WALTER W. MAHON, Esq.

Docket No. 88299

OREGON MUTUAL LIFE INSURANCE CO.,
Petitioner,

vs.

COMMISSIONER OF INTERNAL REVENUE,
Respondent.

DOCKET ENTRIES

1937

Mar. 4—Petition received and filed. Taxpayer notified. (Fee paid)

" 4—Copy of petition served on General Counsel.

Apr. 5—Answer filed by General Counsel.

" 8—Copy of answer served on taxpayer.

May 7—Hearing set week of July 6, 1937 at Portland, Oregon.

1937

July 8—Hearing had before Mr. Arundell, Div. 7 on merits. Submitted. Consolidated with docket 85182. Appearance of Wm. M. Bullitt filed. Petitioner's brief due 9/15/37 — respondent's 10/15/37 — reply 11/5/37. Called July 6, 1937.

Aug. 4—Transcript of hearing of July 8, 1937 filed.

1938

May 23—Motion for leave to file the attached brief, brief lodged, filed by taxpayer. 5/23/38 granted.

" 23—Brief filed by taxpayer.

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June 22—Brief filed by General Counsel.

Aug. 3—Request for findings of fact filed by taxpayer. 8/12/38 copy served.

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1939

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Sep. 6—Proof of Service filed (Taxpayer)
" 6—Statement of evidence lodged.
" 6—Notice of lodgment of statement with hearing set 9/20/39 on settlement. [3]
Sep. 6—Agreed praecipe filed.
" 19—Agreed statement of evidence lodged.
" 19—Agreed statement of evidence approved and ordered filed.
" 19—Agreed amended praecipe filed.
" 21—Copy of order from the 9th Circuit extending the time to Oct. 2, 1939 to complete and transmit record filed. [4]

United States Board of Tax Appeals

Docket No. 85182

OREGON MUTUAL LIFE INSURANCE COMPANY,

Petitioner,

vs.

COMMISSIONER OF INTERNAL REVENUE,

Respondent.

PETITION

The above named petitioner hereby petitions for a redetermination of the deficiency set forth by the Commissioner of Internal Revenue in his notice of deficiency (IT:AR:E-6 LBV-90D) dated March 12, 1936, and as a basis of its proceeding, alleges as follows:

1. The petitioner is an Oregon corporation with its principal office at 1029 S. W. Alder Street, Portland, Oregon.

2. The notice of deficiency (a copy of which is attached and marked Exhibit A) purports to have been mailed to the petitioner on March 12, 1936.

3. The tax in controversy is income tax of $996.30 for the year 1933.

4. The determination of the tax set forth in the said notice of deficiency is based upon the following errors:

(a) The respondent erred in failing and refusing to recognize that reserves for disability and

double indemnity contracts under life insurance policies, should be included in allowable reserves of a life insurance company. [5]

(b) The respondent erred in failing and refusing to recognize that reserves required under Oregon law are allowable inclusions in life insurance company reserves.

(c) The respondent erred in failing and refusing to recognize that a life insurance company is entitled to deduct from Gross Income 3¾% or 4%, whichever the case may be, of the mean of all its allowable reserve funds under state law at the beginning and end of its taxable year.

(d) The respondent erred in failing and refusing to recognize that interest paid to beneficiaries and policy holders under supplementary contracts having no life contingencies, is deductible from Gross Income.

5. Facts upon which the petitioner relies as a basis of this proceeding, are as follows:

(a) Taxpayer corporation included in its reserves proper allowance for disability and double indemnity of its policy holders.

(b) Said reserves are required under the laws of the State of Oregon, by which state taxpayer corporation is chartered and in which taxpayer's principal office is located.

(c) Taxpayer corporation deducted from its Gross Income percentage of mean of such reserves amounting to $17,813.74.

(d) Taxpayer corporation did not deduct from its Gross Income entire amount of interest paid to beneficiaries and policy holders under supplementary contracts having no life contingencies amounting to $7,904.10, all of which applied to the year 1933, and to which it is entitled. [6]

Wherefore, the petitioner prays that this Board may hear the proceeding and find that the petitioner is not liable for the deficiency in tax asserted in respondent's letter of March 12, 1936, and that it may grant such other and further relief as may be justified by its findings.

WILLIAM J. PIEPENBRINK
903-4 Wilcox Building
Portland, Oregon
Counsel for Petitioner. [7]

State of Oregon
County of Multnomah—ss.

W. P. Stalnaker, being duly sworn, says that he is the Vice-President and Treasurer of the Oregon Mutual Life Insurance Company, the petitioner named in the foregoing petition and as such officer he is duly authorized to verify the foregoing petition; that he has read said petition or had the same read to him and is familiar with the statements therein contained, and that the facts therein stated are true, except the facts stated upon information and belief, and these he believes to be true.

W. P. STALNAKER.

Subscribed and sworn to before me this 3rd day of June, 1936.

[Seal] OLGA E. WAHL
Notary Public for Oregon.

My Commission Expires 4/3/38. [8]

EXHIBIT A

Treasury Department
Washington

March 12, 1936

Oregon Mutual Life Insurance Company,
1029 S. W. Alder Street,
Portland, Oregon.

Sirs:

You are advised that the determination of your income tax liability for the taxable year(s) 1932 and 1933 discloses a deficiency of $996.30 for the year 1933 as shown in the statement attached.

In accordance with section 272 (a) of the Revenue Act of 1932, as amended by section 501 of the Revenue Act of 1934, notice is hereby given of the deficiency mentioned. Within ninety days (not counting Sunday or a legal holiday in the District of Columbia as the ninetieth day) from the date of the mailing of this letter, you may file a petition with the United States Board of Tax Appeals for a redetermination of the deficiency.

Should you not desire to file a petition, you are requested to execute the enclosed form and forward it to the Commissioner of Internal Revenue, Washington, D. C., for the attention of IT:C:P-7. The signing and filing of this form will expedite the closing of your return(s) by permitting an early assessment of the deficiency and will prevent the accumulation of interest, since the interest period terminates thirty days after filing the form, or on the date assessment is made, whichever is earlier.

Respectfully,
GUY T. HELVERING,
Commissioner.
By CHAS. T. RUSSELL (Signed)
Deputy Commissioner.

Enclosures:
Statement
Form 870
Schedules 1 to 4, inclusive
Exhibits A to A-4, inclusive [9]

Exhibit A (Continued)

STATEMENT

IT:AR:E-6
LBV-90D

In Re: Oregon Mutual Life Insurance Company
1029 S. W. Alder Street,
Portland, Oregon.

Income Tax Liability

Years	Income Tax Liability	Income Tax Assessed	Deficiency
1932	$ 9,711.31	$ 9,711.31	None
1933	11,517.96	10,521.66	$996.30

The adjustments shown herein are based upon the report dated May 8, 1934, prepared by Internal Revenue Agent H. D. Barber, covering the taxable year 1932, the report dated February 13, 1935, prepared by Internal Revenue Agent F. B. Cauthron, covering the taxable year 1933, and the report dated August 6, 1935, prepared by Agent F. B. Cauthron, covering the years 1932 and 1933.

In case you agree to the entire amount of the deficiency, please fill in the amount of $996.30 on the enclosed form 870 (Waiver of Restrictions) and forward it, properly executed, to the Commissioner of Internal Revenue, Washington, D. C. However, if you do not acquiesce in all of the adjustments making up the deficiency indicated, but would like to stop the accumulation of interest on that part of the deficiency resulting from adjustments to which you agree, please fill out the form

870 inserting therein the amount you desire to have assessed at once. In the event that you agree to only a part of the deficiency indicated, the execution of the form for the agreed portion of the deficiency will not deprive you of your right to petition the United States Board of Tax Appeals for a redetermination of the deficiency for the year or years to which it relates.

Your claims for the refund of $1,068.40 and $1,566.38, corporation income taxes for the years 1932 and 1933, respectively, have been examined and will be disallowed for the reason that the audit of your returns discloses a tax liability in excess of the amounts assessed.

Official notice of the disallowance of your claims will be issued by registered mail in accordance with section 1103(a) of the Revenue Act of 1932. [10]

It was indicated in Bureau letters dated January 16, 1936, and February 17, 1936, of the possible determination of deficiencies in your income taxes for the years 1932 and 1933 and of your right under the provisions of the revenue acts to make application for the execution of consents extending the statutory periods of limitation for assessment and collection. The consent form enclosed for your consideration has not been received in this office. It is therefore necessary to issue this final notice of deficiency. [11]

Exhibit A (Continued)

Oregon Mutual Life Insurance Company.
Year ended December 31, 1933

(Schedules 1 and 2 omitted because applying to year 1932)

Schedule 3

Adjustments to Net Income

Net income as disclosed by return		$55,733.02
As corrected		83,766.99
Net adjustment as computed below		$28,033.97
Unallowable deductions and additional income:		
(a) Accrued interest on non-taxable securities	$ 2,932.50	
(b) Taxes	3,233.80	
(c) Real estate expense	4 075.47	
(d) Depreciation	9,984.72	
(e) Excess mean of reserves	17,813.74	
Total		$38,040.23
Nontaxable income and additional deductions:		
(f) Interest paid	$ 9,716.45	
(g) Investment expense	282.81	
(h) Material error	7.00	
Total		10,006.26
Net adjustment as above		$28,033.97

Explanation of Items Changed

(a) This accrued interest was deducted from interest received account but not deducted in computing interest received on tax-free securities.

Exhibit A (Continued)

(b) This represents taxes paid on home office building wholly occupied by you. These taxes may not be deducted in computing taxable net income as provided by section 203(b) of the Revenue Act of 1932.

(c) This represents expenses other than taxes incurred in connection with home office building. These deductions are not allowable.

(d) See exhibits A to A-4 attached.

(e) The deduction from income with respect to the mean of the reserves has been recomputed as follows: [12]

	Beginning of Taxable Year	End of Taxable Year
Reserve for outstanding policies and annuities as shown on return	$9,467,121.86	$ 9,570,749.69
Less:		
Additional deficiency reserve for disability	51,964.51	48,819.98
Net	$9,415,157.35	$ 9,521,929.71
Deduct:		
American annuity 4%	37,194.49	53,338.57
Totals	$9,377,962.86	$ 9,468,591.14
Total		18,846,554.00
Mean		9,423,277.00
3¾% of mean		353,372.89
Total American annuitant 4% at beginning and end of year		90,533.06
Mean		45,266.53
4% of mean		1,810.66

Exhibit A (Continued)

Summary

Deduction for 3¾% of mean of reserves	353,372.89
Deduction for 4% of mean of reserves American annuitant	1,810.66
Total deductions allowable	355,183.55
Amount claimed on return	372,997.29
Amount disallowed	17,813.74

(f) See (h) Schedule 1.

(g)

	Beginning of Year	Close of Year
Invested assets shown by return	$11,442,746.33	$11,547,093.71
Add:		
Write down of real estate	83,170.87	83,170.87
Write down of bonds	25,237.67	70,400.44
Write down of Crook County Land	20,000.00	20,000.00
Write down of garage property, 1933 $9,266.15		
Less depreciation, 1933 655.67		8,610.48
Totals	$11,571,154.87	$11,729,275.50

[13]

Brought forward	$11,571,154.87	$11,729,275.50
Deduct:		
Depreciation—home building	31,479.35	38,185.13
Depreciation—Other buildings	6,496.57	8,183.46
Totals	37,975.92	46,368.59
Invested assets as corrected	$11,533,178.95	$11,682,906.91
Mean of invested assets		11,608,042.93
¼ of 1% of mean		29,020.11
Amount claimed on return		28,737.30
Additional allowed		$ 282.81

(h) Error in addition of tax-exempt interest.

Exhibit A (Continued)

Schedule 4

Computation of Tax

Income Tax

Net income for taxable year		$ 83,766.99
Income tax 13¾ per cent		11,517.96
Total previously assessed #40714	$7,663.29	
Additional assessment February 1935, #52013	2,858.37	10,521.66
Deficiency		$ 996.30

[14]

EXHIBIT A

DEPRECIATION SUMMARY

	1932	1933
Buildings other than home office, exhibits A-1 and A-4	$ 1,686.89	$ 2,342.56
Home office, exhibit A-2	None	None
Furniture and fixtures, exhibit A-3	889.79	1,002.84
Depreciation allowable	2,576.68	3,345.40
Depreciation taken on return	12,903.45	13,330.12
Depreciation disallowed	$10,326.77	$ 9,984.72

[15]

Exhibit A (Continued)

EXHIBIT A-1

DEPRECIATION

Buildings Other than Home Office
Kinney Building, Stores and Apartments

Month and Year of Acquisition	Age When Acquired	Probable Life After Acquisition	Cost	December 31, 1931	Remaining Cost	Remaining Life	Depreciation Year 1932	Depreciation Year 1933
January 7, 1931	7 years	23 years	$29,875.22	$1,493.76	$18,506.24	22 years	$ 841.19	$ 841.19
		Land	9,875.22					
		Building	$20,000.00					
Smith Building Stores and Hotels								
May 1, 1930	8 years	22 years	34,181.67					
		Land	13,672.67					
		Building	20,509.00	3,315.92	17,193.08	20⅓ yrs.	845.70	845.70
		Buildings	$40,509.00	$4,809.68	$35,699.32		$1,686.89	$1,686.89

EXHIBIT A-2

DEPRECIATION

Home Office Building

Depreciation claimed on return	$6,705.68	$6,705.68
Depreciation allowable	None	None
Depreciation disallowed	$6,705.68	$6,705.68

Building occupied wholly by you. No depreciation is allowable (See section 203(7) and 203(b) of the Revenue Act of 1932.

[16]

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Exhibit A (Continued)

EXHIBIT A-3

DEPRECIATION

Furniture and Fixtures

Acquired	Cost	Reserve December 31, 1931	Unrecovered Cost as of December 31, 1931 and Subsequent Acquisitions	Estimated Remaining Life from December 31, 1931	Depreciation Year 1932	Depreciation Year 1933
1921	$ 4,095.27	$ 4,095.27				
1922	5,008.49	4,758.06	$ 250.43	5 years	$ 50.09	$ 50.09
1923	3.941.61	3,350.37	591.24	6 years	98.54	98.54
1924	5,588.29	4,191.22	1,397.07	7 "	199.58	199.58
1925	8,300.85	5,395.22	2,905.13	8 "	363.14	363.14
1926	24,806.56	13,643.60	11,162.96	9 "	1,240.33	1,240.33
1927	2,349.22	1,057.15	1,292.07	10 "	129.21	129.21
1928	1,125.48	393.91	731.57	11 "	66.51	66.51
1929	11,717.96	2,929.48	8,788.48	12 "	732.37	732.37
1930	7,215.81	1,082.37	6,133.44	13 "	471.80	471.80
1931	5,223.19	261.16	4,962.03	14 "	354.43	354.43
1932	2.818.20		2,818.20	15 "	(½ yr.) 93.94	187.88
1933	1,722.63		1,722.63	15 "	(½ yr.)	57.42
	$83,913.06	$41,157.81	$42,755.25		$3,799.94	$3,951.30

	Year 1932	Year 1933
Ratio which statutory gross investment income bears to total gross income from all departments	23.416%	25.38%
Depreciation claimed in return	$3,244.02	$3,419.31
23.416% x $3,799.94 and 25.38% x $3,951.30	889.79	1,002.84
Depreciation disallowed	$2,354.23	$2,416.47

[17]

Exhibit A (Continued)

EXHIBIT A-4

DEPRECIATION ON FOLLOWING PROPERTIES NOT PREVIOUSLY ALLOWED

Description	Date Acquired	Year Constructed	Total Cost of Land and Building	Cost Allocated to Building	Estimated Life after Acquirement	Depreciation 1933
Dwelling—Frame	April 4, 1933	1907	$ 6,500.00	$ 1,500.00	7 years	$160.72
Garage—Frame	April 13, 1933	1925	14,213.87	8,000.00	22 years	272.73
Garage—Masonry and Frame	August 30, 1933	1905	19,266.15	10,000.00	15 years	222.22
Total depreciation allowable						$655.67

[Endorsed]: U.S.B.T.A. Filed June 5, 1936.

[18]

[Title of Board and Cause—Docket No. 85182.]

ANSWER

Comes now the Commissioner of Internal Revenue, by his attorney, Herman Oliphant, General Counsel for the Department of the Treasury, and for answer to the petition filed in the above-entitled appeal, admits and denies as follows:

1, 2 and 3. Admits the allegations contained in paragraphs 1, 2 and 3 of the petition.

4. Denies that *that* the Commissioner erred as alleged in sub-paragraphs (a) to (d), inclusive, of paragraph 4 of the petition.

5. Denies the allegations contained in sub-paragraphs (a), (b), (c) and (d) of paragraph 5 of the petition.

Denies generally and specifically each and every allegation contained in the petition not hereinbefore expressly admitted, qualified or denied.

Wherefore, it is prayed that petitioner's appeal be denied.

(s) HERMAN OLIPHANT,
General Counsel for the
Department of the Treasury.

Of Counsel:
I. GRAFF,
V. F. WEEKLEY,
Special Attorneys
Bureau of Internal Revenue.

[Endorsed]: U.S.B.T.A. Filed July 20, 1936.

[19]

United States Board of Tax Appeals

Docket No. 88299

OREGON MUTUAL LIFE INSURANCE COMPANY,

Petitioner,

vs.

COMMISSIONER OF INTERNAL REVENUE,

Respondent.

PETITION

The above named petitioner hereby petitions for a redetermination of the deficiency set forth by the Commissioner of Internal Revenue in his notice of deficiency (IT:E:6 LBV-90D) dated December 11, 1936, and as a basis of its proceeding, alleges as follows:

1. The petitioner is an Oregon corporation with its principal office at 1029 S. W. Alder Street, Portland, Oregon.

2. The notice of deficiency (a copy of which is attached and marked Exhibit "A") purports to have been mailed to the petitioner on December 11, 1936.

3. The tax in controversy is income tax of $2,626.98 for the year 1934.

4. The determination of the tax set forth in the said notice of deficiency is based upon the following errors:

(a) The respondent erred in failing and refusing to recognize that accrued interest on mortgage

notes on property foreclosed is not actual income and should not be included in income for tax purposes. [20]

(b) The respondent erred in failing and refusing to recognize that reserves required under Oregon law are allowable inclusions in life insurance company reserves.

(c) The respondent erred in failing and refusing to recognize that a life insurance company is entitled to deduct from Gross Income 3¾% or 4%, whichever the case may be, of the mean of all its allowable reserve funds under state law at the beginning and end of its taxable year, including extra reserve for total and permanent disability benefits and for additional accident benefits, reserve for present value of amounts not yet due on supplementary contracts not involving life contingencies, present value of amounts incurred for total and permanent disability and additional deficiency reserve for disability.

(d) The respondent erred in failing and refusing to recognize that taxes paid on property taken over does not actually increase the value thereof, and should be allowed as a deduction from income.

(e) The respondent erred in failing and refusing to recognize that depreciation used on rented property is based upon actual condition of property, and not upon favorable experience under different circumstances; that depreciation on office furniture and fixtures in an office kept modernized, is not less than 10%.

(f) The respondent erred in failing and refusing to recognize that repairs to properties did not increase the values but were ordinary and necessary repairs only.

(g) The respondent erred in failing and refusing to recognize that the interest deduction for allowance of interest on [21] supplementary contracts should be $6,389.61 instead of the guaranteed interest of $5,321.71 by reason of the excess interest of 1.3%.

5. Facts upon which the petitioner relies as a basis of this proceeding, are as follows:

(a) Accrued Interest amounting to $1,368.44 was included in the judgments covering foreclosed properties in order to protect taxpayer against loss in the event of redemption. No actual earning resulted.

(b) Taxpayer included in its reserves proper allowance for total and permanent disability benefits and for additional accidental benefits; reserve for present value of amounts not yet due on supplementary contracts not involving life contingencies; and the present value of amounts incurred for total and permanent, with an additional deficiency reserve not included in the extra reserve for total and permanent disability benefits above. Said reserves are required under the laws of the State of Oregon, by which state taxpayer corporation is chartered and in which taxpayer's office is located. Taxpayer corporation deducted from

its Gross Income percentage of mean of such reserves amounting to $18,177.22.

(c) It was necessary to pay taxes on property taken over amounting to $2,681.20. In no sense do these payments add to the value of the property.

(d) Depreciation taken was in accordance with usual practice. Furniture and Fixtures in taxpayer's business are maintained in first class condition, and are constantly replaced. It is necessary to depreciate on a ten year basis. [22]

(e) Taxpayer kept rented properties in good repair. Necessary repairs in connection therewith were treated as expenses on the books as no increase in value resulted.

(f) Interest allowance on eliminated supplementary contracts should be $6,389.61 instead of $5,321.71 suggested by Commissioner, because of the excess interest of 1.3%. This interest must be paid to beneficiaries and policy holders.

Wherefore, the petitioner prays that this Board may hear the proceeding and find that petitioner is not liable for the deficiency in tax asserted in respondent's letter of December 11, 1936, and that it may grant such other and further relief as may be justified by its findings.

WILLIAM J. PIEPENBRINK
903-4 Wilcox Building
Portland, Oregon
Counsel for Petitioner [23]

State of Oregon
County of Multnomah—ss.

W. P. Stalnaker, being duly sworn, says that he is the Vice-President and Treasurer of the Oregon Mutual Life Insurance Company, the petitioner named in the foregoing petition and as such officer he is duly authorized to verify the foregoing petition; that he has read said petition or had the same read to him and is familiar with the statements therein contained, and that the facts therein stated are true, except the facts stated upon information and belief, and these he believes to be true.

W. P. STALNAKER.

Subscribed and sworn to before me this 1st day of March, 1937.

[Seal] OLGA E. WAHL
Notary Public for Oregon.

My Commission Expires Apr. 3, 1938. [24]

EXHIBIT A

December 11, 1936

IT:E:6
LBV:90D

Oregon Mutual Life Insurance Company,
1029 South West Alder Street,
Portland, Oregon.

Sirs:

You are advised that the determination of your income tax liability for the taxable year 1934 dis-

closes a deficiency of $2,626.98 as shown in the statement attached.

In accordance with section 272(a) of the Revenue Act of 1934, notice is hereby given of the deficiency mentioned. Within ninety days (not counting Sunday or a legal holiday in the District of Columbia as the ninetieth day) from the date of the mailing of this letter, you may file a petition with the United States Board of Tax Appeals for a redetermination of the deficiency.

Should you not desire to file a petition, you are requested to execute the enclosed form and forward it to the Commissioner of Internal Revenue, Washington, D. C., for the attention of IT:Cl:P:7. The signing and filing of this form will expedite the closing of your return by permitting an early assessment of the deficiency and will prevent the accumulation of interest, since the interest period terminates thirty days after filing the form, or on the date assessment is made, whichever is earlier.

Respectfully,
GUY T. HELVERING,
Commissioner.
By (Signed) CHAS. T. RUSSELL
Deputy Commissioner.

Enclosures:
Statement
Form 870
Schedule 1 and 2
Exhibits A. and B. [25]

Exhibit A (Continued)

STATEMENT

IT:E:6
LBV:90D

In Re: Oregon Mutual Life Insurance Company,
1029 South West Alder Street,
Portland, Oregon

Income tax Liability

Year—1934
Income Tax Liability—$5,340.67.
Income Tax Assessed—$2,713.69.
Deficiency—$2,626.98.

The deficiency shown herein is based upon the report dated May 12, 1936 prepared by Revenue Agent, L. C. Gunning, a copy of which was transmitted to you, and upon such adjustments as are shown in the attached schedules numbered 1 and 2.

Careful consideration has been given to your protest dated June 9, 1936 in connection with the report of the internal revenue agent in charge, and the information submitted at a conference held in the office of that official, July 10, 1936, also to the information submitted at a conference held in this office September 24, 1936.

A copy of this letter has been mailed to your representative Mr. William J. Piepenbrink, Wilcox Building, Portland, Oregon, in accordance with the authority conferred in a power of attorney on file with the Bureau. [26]

Exhibit A (Continued)

Oregon Mutual Life Insurance Co. Year ended December 31, 1934.

Schedule 1

Adjustments to Net Income

Net income as disclosed by amended return		$19,735.95
As corrected		38,841.25
Net adjustment as computed below		$19,105.30
Unallowable deductions and additional income:		
(a) Interest income increased	$ 1,368.44	
(b) Excess mean of reserves	18,177.22	
(c) Real estate taxes	2,681.20	
(d) Excess depreciation	673.78	
(e) Other real estate expenses reduced	1,533.35	
Total		$24,433.99
Nontaxable income and additional deductions:		
(f) Interest deduction increased	$ 5,321.71	
(g) Investment expense increased	6.98	5,328.69
Net adjustment as above		$19,105.30

Explanation of Items Changed

(a) Accrued interest on mortgage notes on property foreclosed in 1934. This interest was included in the judgments and used to apply on purchase price of properties and must be included in gross income. (See American Central Life Insurance Company, 30 B. T. A. No. 182.) [27]

Exhibit A (Continued)

(b) Excess mean of reserves.

This item has been determined as follows:

	Beginning of Year	End of year
Reserve for outstanding policies and annuities as shown by return	$9,570,749.69	$ 9,978,940.89
Deduct:		
American annuitant 4%	53,338.57	159,055.31
Balance at 3¾%	9,517,411.12	9,819,885.58
Beginning and end		19,337,296.70
Mean		9,668,648.35
3¾% of the mean		362,574.31
Total American Annuitant beginning and end of year		212,393.88
Mean		106,196.94
4% of the mean		4,247.87
Summary		
Deduction 3¾% of mean		$ 362,574.31
Deduction 4% of mean		4,247.87
Total		366,822.18
Deducted on return		384,999.40
Excess deduction		$ 18,177.22

In computing the mean of reserves required by law within the meaning of Treasury Decision 4615 published in Cumulative Bulletin XIV-2, page 310, the following items claimed on your return have been eliminated:

	Beginning of Year	End of Year
Extra reserve for total and permanent disability benefits and for additional accident benefits	$123,819.80	$166,831.02
Reserve for present value of amounts not yet due on supplementary contracts not involving life contingencies	138,364.19	212,150.30
Present value of amounts incurred for total and permanent disability	121,107.04	158,359.97
Additional deficiency reserve for disability	48,819.98	
Total	$432,111.01	$537,341.29

Exhibit A (Continued)

(c) Real Estate Taxes, $2,681.20.

This represents taxes paid in 1934 on property on which taxes had become a lien. It appears that in Oregon, taxes become a lien on March 1st of the year prior to the year they are payable. Since the property on which these taxes were paid was taken over by you subsequent to March 1, 1933, the amounts have been restored to income, since they represent a part of the cost of the property.

(d) Excessive Depreciation:

Depreciation on rented property Exhibit A attached	$3,787.53
Depreciation on furniture and fixtures, Exhibit B attached	972.45
Total depreciation allowable	$4,759.98
Depreciation claimed on return	5,433.76
Excessive	$ 673.78

(e) Other real estate expenses $1,533.35.

This item represents expenditures made on the following properties:

Benton Residence	$ 457.85
Cornell Building	1,075.50

These properties were taken over in 1934, on mortgage foreclosures and these expenditures were made for the purpose of putting the properties in shape to rent. These items do not constitute proper deductions from gross income.

Exhibit A (Continued)

(f) Interest deduction increased, $5,321.71. This represents interest paid during 1934 on supplementary contracts. [29]

(g) Investment expense:

	Beginning of Year	End of Year
Invested assets as shown by return	$11,547,093.71	$12,148,408.89
Add:		
Write down of real estate	83,170.67	83,170.67
Write down of bonds	70,400.44	42,528.32
Write down of Croak City land	20,000.00	20,000.00
Write down on garage property	9,266.15	9,266.15
Accrued interest due at time of foreclosure capitalized		1,368.44
Real estate taxes capitalized		2,681.20
Other real estate expenses capitalized		1,533.35
Totals	$11,729,930.97	$12,308,957.02
Less:		
Depreciation on Home Building	38,185.03	44,890.71
Depreciation on other buildings	8,839.13	12,626.66
Total deductions	$ 47,024.16	$ 57,517.37
Invested assets amended	$11,682,906.81	$12,251,439.65
Total invested assets		23,934,346.46
Mean of invested assets		$11,967,173.23
¼ of 1% of mean		$ 29,917.93
Amount claimed on return		29,910.95
Additional amount allowable		$ 6.98

Schedule 2

Computation of Tax
Income Tax

Net income for taxable year		$ 38,841.25
Income tax at 13¾%		5,340.67
Total previously assessed, #40934	$2,821.71	
Less: Collector's claim	108.02	2,713.69
Deficiency of income tax		$ 2,626.98

[30]

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Exhibit A (Continued)

Oregon Mutual Life Insurance Company.

EXHIBIT A

DEPRECIATION OF RENTAL PROPERTIES

Date of Acquisition	Property	Total Cost of Acquisition	Allocated to Building	Depreciation Accrued to Dec. 31, 1933	Unrecovered Cost Dec. 31, 1933	Remaining Life from Dec. 31, 1933	1934 Depreciation	Accrued Reserve Dec. 31, 1934
January 7, 1931	Kenney Building	$29,875.22	$20,000.00	$3,176.14	$16,823.86	20 yrs.	$ 841.19	$ 4,017.33
May 1, 1930	Smith Building	34,181.67	20,509.00	5,007.32	15,501.68	18⅓ yrs.	845.70	5,853.02
April 4, 1933	Bocton Koopman Farm	6,500.00	1,500.00	160.72	1,339.28	6¼ yrs.	214.29	375.01
April 13, 1933	Wicks & Osborn Garage	14,213.87	8,000.00	272.73	7,727.27	21¼ yrs.	363.64	636.37
August 30, 1933	Dunns Service Garage	19,266.15	10 000.00	222.22	9,777.78	14⅔ yrs.	666.67	888.89
December 30, 1933	Tobin Property	14,368.36	2,000.00		2,000.00	7 yrs.	285.71	285.71
December 30, 1933	Hahn & Rebman	6,104.53	3,704.53		3,704.53	20 yrs.	185.23	185.23
March 26, 1934	Maxwell Property		1,000.00		1,000.00	6 yrs.	125.00	125.00
April 26, 1934	Purcell Property		1,786.87		1,786.87	18 yrs.	66.21	66.21
June 26, 1934	Fenton Property		2,914.68		2,914.68	19 yrs.	76.70	76.70
September 22, 1934	Cornell Property		7,500.00		7,500.00	16 yrs.	117.19	117.19
December 31, 1934	Davis Property		3,220.00		3,220.00	13 yrs.		
	Totals		$82,135.08	$8,839.13	$73,295.95		$3,787.53	$12,626.66

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Exhibit A (Continued)

EXHIBIT B

Computation of ratio, which statutory gross investment income bears to total gross income for all departments.

Total income per line #44, page 2 of statement	$2,790,651.51
Less:	
Income resulting from book adjustments	294,406.13
	2,496,245.38
Add:	
Interest income increased	1,368.44
Total gross as amended	$2,497,613.82
Statutory Gross income per return	$ 588,235.48
Add:	
Interest income increased	1,368.44
Statutory gross as amended	$ 589,603.92
Ratio of Statutory gross to total gross $ 589,603.92	equals 23.606%
	2,497,613.82
Allowable depreciation personal property 23.606% of $4,119.52	$972.45

The deduction for depreciation on furniture and fixtures is limited to the assets used in your investment business. (Reference Rockford Life Insurance Company v. Commissioner of Internal Revenue, Cumulative Bulletin XIII-1, page 153. In the absence of a segregation of the assets as between underwriting and investment departments, the deduction for depreciation is based upon the per-

Exhibit A (Continued)

centage that investment income is of the total gross income. [32]

EXHIBIT B

DEPRECIATION

Furniture and Fixtures

Date Acquired	Cost	Accrued Depreciation to Dec. 31, 1933	Unrecovered Cost Dec. 31, 1933	Remaining Life from Dec. 31, 1933	Depreciation 1934	Accrued Depreciation Dec. 31, 1934
1921	$ 4,095.27	$ 4,095.27	$		$	$ 4,095.27
1922	5,008.49	4,858.24	150.25	3 yrs.	50.09	4,908.33
1923	3,941.61	3,547.45	394.16	4 yrs.	98.54	3,645.99
1924	5,588.29	4,590.38	997.91	5 yrs.	199.58	4,789.96
1925	8,300.35	6,121.50	2,178.85	6 yrs.	363.14	6,484.64
1926	24,806.56	16,124.26	8,682.30	7 yrs.	1,240.33	17,364.59
1927	2,349.22	1,315.57	1,033.65	6 yrs.	129.21	1,444.78
1928	1,125.48	526.93	598.55	9 yrs.	66.51	593.44
1929	11,717.96	4,394.22	7,323.74	10 yrs.	732.37	5,126.59
1930	7,215.81	2,025.97	5,189.84	11 yrs.	471.80	2,497.77
1931	5,223.19	970.02	4,253.17	12 yrs.	354.43	1,324.45
1932	2,818.20	281.82	2,536.38	13½ yrs.	187.88	469.70
1933	1,722.63	57.42	1,665.21	14½ yrs.	114.84	172.26
1934	3,324.12		3,324.12	15½ yrs.	110.80	110.80
Total	$87,237.18	$48,909.05	$38,328.13		$4,119.52	$53,028.57

[Endorsed]: U.S.B.T.A. Filed March 4, 1937. [33]

[Title of Board and Cause—Docket No. 88299.]

ANSWER

Comes now the respondent, by his attorney, Morrison Shafroth, Chief Counsel, Bureau of Internal Revenue, and for answer to the petition filed herein,

admits and denies as follows:

1. Admits the allegations contained in paragraph 1 of the petition.

2. Admits the allegations contained in paragraph 2 of the petition.

3. Admits that the taxes in controversy are income taxes for the taxable year 1934, and denies the remainder of paragraph 3 of the petition.

4(a) to (g) inclusive. Denies that the Commissioner erred as alleged in subparagraphs (a) to (g) inclusive, of paragraph 4 of the petition.

5(a) to (f) inclusive. Denies the allegations of fact contained in subparagraphs (a) to (f) inclusive, of paragraph 5 of the petition.

Denies generally and specifically each and every allegation contained in the petition not hereinabove admitted, qualified or denied.

Wherefore, it is prayed that the Board redetermine the correct amount of the deficiency involved in this proceeding to be equal to the amount determined by the Commissioner, viz., $2,626.98.

(Signed) MORRISON SHAFROTH
Chief Counsel, Bureau of
Internal Revenue.

Of Counsel:

F. R. SHEARER,
E. M. WOOLF,
Special Attorneys,
Bureau of Internal Revenue.

[Endorsed]: U.S.B.T.A. Filed Apr. 5, 1937. [34]

[Title of Board and Cause—Docket Nos. 85182-88299.]

EXCERPTS FROM TRANSCRIPT OF RECORD

(Read into the Record July 8, 1937)

* * * Mr. Bullitt: * * * This is a copy of the concession that we are making (counsel handing a paper to the member) so as to get rid of all the other things in the case. [35]

Oregon Mutual's Concessions (for the Purposes of these Two Cases Only) with Respect to Both Its 1933 and 1934 Tax Deficiencies.

Oregon Mutual hereby concedes that the Commissioner's notices of deficiency dated respectively March 12, 1936 for taxable year 1933, and December 11, 1936 for taxable year 1934 were correct with respect to the following items, to wit:

Taxable Year	Items	
1933—		
(I)	Unallowable Deductions and Additional Income:	
	(a) Accrued interest on non-taxable securities	$ 2,932.50
	(c) Taxes	3,233.80
	(c) Real Estate Expense	4,075.47
	(d) Depreciation	9,984.72
	(e) Excess mean of reserves [part only]	
	Deductions for 3¾% of the mean of the reserve funds held at the beginning and end of the taxable year 1933 for (1) Double Indemnity Benefits; (2) Amounts not yet due on Supplementary Contracts not involving life contingencies (Regulations 86 Art. 203(a)(2)-1); and (3) Disability Benefits (Additional Deficiency Reserve), to-wit:	

	Beginning of Year	End of Year	Mean	3¾% of Mean	
(1)	$13,920.13	$13,505.37	$13,712.75	$ 514.23	
(2)	118,063.52	138,364.19	128,213.86	4,808.01	
(3)	51,964.51	48,819.98	50,392.25	1,889.71	
					7,211.95
					$27,438.44

(II) Deduction for Interest paid on Indebtedness, i. e., paid to beneficiaries and policyholders under Instalment Supplementary Contracts involving no life contingency (Penn Mutual Life Insurance Co. 32BTA 839, 876)..... $ 7,904.10

1934—

(I) Unallowable Deductions and Additional Income:

(a)	Interest income increased.....	$ 1,368.44
(b)	Real estate taxes.....	2,681.20
(d)	Excess depreciation	673.78
(e)	Other real estate expenses reduced.....	1,533.35

(b) Excess mean of reserves [part only]

Deductions for 3¾% of the mean of the reserve funds held at the beginning and end of the taxable year 1934 for (1) Double Indemnity Benefits; (2) Amounts not yet due on Supplementary Contracts not involving life contingencies (Regulations 86 Art. 203(a)(2)-1); and (3) Disability Benefits (Additional Deficiency Reserve), to-wit:

	Beginning of Year	End of Year	Mean	3¾% of Mean	
(1)	$13,505.37	$13,577.21	$13,541.29	$ 507.80	
(2)	138,364.19	212,150.30	175,257.25	6,572.14	
(3)	48,819.98	41,313.07	45,066.53	1,689.99	
					8,769.93
					$15,026.70

(II) Deduction for interest paid on indebtedness, i. e., excess interest of 1.3% paid to beneficiaries and policyholders under instalment Supplementary Contracts having no life contingencies (Penn Mutual Life Insurance Co., 32BTA 839, 876)..... $ 1,067.90

Accordingly, Oregon Mutual hereby waives, abandons and withdraws the following parts of its two petitions for a redetermination of its alleged tax deficiencies, which relate to the above items, to-wit:

Docket No. 85182 for Taxable Year 1933

1. So much of Sub-paragraphs (a), (b) and (c) of Paragraphs 4 and 5 [Petition No. 85182] as relate to (1) Double Indemnity Benefits, (2) Amounts not yet due on Supplementary Contracts not involving life contingencies, and (3) Additional Deficiency Reserves for Disability Benefits.

2. All of Sub-paragraph (d) of Paragraphs 4 and 5 [Petition No. 85182]. [36]

Docket No. 88299 for Taxable Year 1934

1. So much of Sub-paragraphs (b) and (c) of Paragraph 4, and so much of Sub-paragraph (b) of Paragraph 5 [Petition No. 88299] as relates to (1) Double Indemnity Benefits, (2) Amounts not yet due on Supplementary Contracts not involving life contingencies, and (3) Additional Deficiency Reserves for Disability Benefits.

2. All of Sub-paragraphs (a) (d) (e) (f) and (g) of Paragraph 4, and all of Sub-paragraphs (a) (c) (d) (e) and (f) of Paragraph 5 [Petition No. 88299].

Oregon Mutual hereby, of record, formally limits its petitions for a redetermination of its alleged tax liability to $2,492.29 of the taxes in controversy, which $2,492.29 is 13¾% of $18,125.76 disputed deductions as follows:

Under Section 203 (a) (2) of the Revenue Act of 1932, which provided that a Life Insurance Company might deduct from its gross income 3¾% "of the mean of the reserve funds required by law and held at the beginning and end of the taxable year," Oregon Mutual claims it is entitled to deduct the following amounts for the taxable years 1933 and 1934:

1933		
3¾% (or 4% as case may be) of mean of reserve funds	$363,895.63	
1934		
3¾% (or 4% as case may be) of mean of reserve funds	$376,229.47	
Total 3¾% deductions claimed by Oregon Mutual		$740,125.10

Whereas, Commissioner, in determining the tax deficiency for 1933 and 1934 under Section 203(a)(2), only allowed a deduction of the following amounts:

1933		
3¾% (or 4% as case may be) of mean of reserve funds	$355,183.55	
1934		
3¾% (or 4% as case may be) of mean of reserve funds	366,822.18	
Total 3¾% deductions allowed by Commissioner		$722,005.73
3¾% deduction in Controversy		$ 18,119.37
Tax in Controversy (13¾% of disputed deduction of $18,119.37)		$ 2,491.41

Under the Revenue Act of 1932, Sec. 203 (a) (2), Oregon Mutual is entitled to a deduction of 3¾% "of the mean of the reserve funds required by law and held at the beginning and end of the taxable year" 1933 and 1934, respectively, which Oregon Mutual contends are as follows:

Total and Permanent Disability Reserve

1933	Beginning of Year	End of Year	Mean	3¾% of Mean	
(a) Active Life Reserve	$108,347.16	$110,314.43	$109,330.80	$ 4,099.91	
(b) Disabled Life Reserve	124,875.42	121,107.04	122,991.23	4,612.17	
			13¾% tax on	$ 8,712.08	=$1,197.91
1934					
(a) Active Life Reserve	$110,314.43	$111,940.74	$111,127.58	$ 4,167.28	
(b) Disabled Life Reserve	121,107.04	158,359.97	139,733.51	5,240.01	
			13¾% tax on	$ 9,407.29	=$1,293.50
			Total Tax in controversy		$2,491.41

This leaves in controversy between Oregon Mutual and the Commissioner only ~~$2,492.29~~ 2491.41 alleged tax deficiency, to-wit:

Taxable Year, 1933	13¾%	of $ 8,712.08	=$1,197.91
Taxable Year, 1934	13¾%	of $ 9,407.29	=$1,293.50
Total Tax in Controversy—	13¾%	of $18,119.37	=$2,491.41

[Endorsed]: U.S.B.T.A. Filed Aug. 4, 1937. [37]

[Title of Board and Cause—Docket Nos. 85182, 88299.]

Reserves carried by life insurance company to meet anticipated liability under disability provisions contained in life insurance policies, where (a) no disability had occurred in the taxable years, and (b) where disability had occurred but liability for benefits had not accrued, held to be reserve funds required by law and a proper basis for deductions under Section 203 (a) (2) of the Revenue Acts of 1932 and 1934. Pan-American Life Insurance Co., 38 B. T. A....., followed.

Wm. Marshall Bullitt, Esq., and A. B. Winfree, Esq., for the petitioner.

John H. Pigg, Esq., and Walter W. Mahon, Esq., for the respondent.

MEMORANDUM FINDINGS OF FACT AND OPINION.

Arundell: In these proceedings the respondent determined deficiencies in income tax for the years

1933 and 1934 in the respective amounts of $996.30 and $2,626.98. Some of the errors originally alleged were waived by counsel for petitioner at the hearing, leaving in issue only the disallowance of 3¾ per cent of the mean of reserves for total and permanent disability benefits. The petitioner claims that the reserve funds created to care for anticipated liability under the disability provisions in its policies of life insurance are reserve funds required by law within the meaning of the statutes taxing life insurance companies and that the statutory percentage of the mean of such reserves is a deductible item. [38]

Findings of Fact.

The petitioner is a mutual life insurance company, organized under the laws of Oregon, engaged in the business of issuing life insurance on the level premium plan, including the granting of annuities and the issuance of disability and double indemnity insurance.

In the years 1933 and 1934 the petitioner had in force approximately 25,000[1] policies of life insurance policies which were about equally divided between disability and non-disability policies.[2] The non-disability policies provided for death benefits only.[3]

---

[1]24,382 at December 31, 1933 and 25,177 at December 31, 1934.

[2]11,060 disability and 13,322 non-disability policies at December 31, 1933. 10,701 disability and 14,476 non-disability policies at December 31, 1934.

[3]The reserves pertaining to non-disability policies are not in issue in these proceedings.

The policies here designated disability policies, in addition to providing death benefits, provided that upon proof by the insured, before age 60, of total and permanent disability the petitioner would waive the payment of premiums by the insured and would pay the insured annually an amount equal to one-tenth of the face of the policy during the continuance of the disability. Petitioner carried reserves in the taxable years to meet its contingent liabilities under the disability provisions of these policies. Two reserves were carried, one being shown on the convention edition of annual statements as "Extra reserve for total and permanent disability benefits" and the other as "Present value of amounts incurred but not yet due for total and permanent disability benefits". For convenience the first is here called "active life [39] reserves" and the other "disabled life reserves". The reserves at the beginning and end of each of the taxable years, and the mean thereof were as follows:

1933	Active Life	Disabled Life
Jan. 1	$108,347.16	$124,875.42
Dec. 31	110,314.43	121,107.04
Mean	$109,330.79	$122,991.23
1934		
Jan. 1	$110,314.43	$121,107.04
Dec. 31	111,940.74	158,359.97
Mean	$111,127.58	$139,733.51

Under the level premium plan the amount of the premium charged for disability benefits is constant throughout the period that the insured is entitled to the disability benefits. During the first years that policies are outstanding the premiums received by the company are in excess of the amounts paid out under the policies. As the policy holders advance in age the situation is reversed and the current premiums and interest are no longer sufficient to meet current claims. Because of this situation the petitioner created reserves out of current premiums and interest in each year to meet its future liabilities under the disability provisions of its policies. The amount of the reserve necessary to meet future liabilities is determined by reference to combined mortality and disability tables.

The active life reserve is designed to meet future unaccrued and contingent liabilities under those disability policies the holders of which have not incurred disabilities. As each active life becomes disabled the petitioner creates out of the active life reserve another reserve, the disabled life reserve, to enable it to pay disability benefits to become due in the future as long as the disabled policy holder remains alive and disabled. There is no duplication between these two reserves. [40]

The mean of petitioner's reserves for death benefits only were as follows in the taxable years:

	1933	1934
Non-disability policies	$5,643,477.25	$6,093,400.64
Disability policies	3,875,458.52	3,681,444.65

The reserves maintained by the petitioner in the taxable years complied with the requirements of the Department of Insurance of the State of Oregon.

OPINION.

The record in these proceedings contains a great deal of evidence as to the evolution of life insurance policies and methods of calculation of premiums and reserves, including lengthy tables of calculations. We have made no findings on these matters as we do not think they are essential to a disposition of the issues. Concessions made by the petitioner at the hearing leave in issue only the petitioner's claims for deductions of 3-¾ per cent of the mean of two reserve funds which for convenience are here called (1) reserve for active lives, and (2) reserves for disabled lives.

The parties are in agreement that the petitioner is a life insurance company. The respondent has allowed deductions for the statutory percentage of the mean of the reserves for death benefits under policies without disability provisions and also those with disability provisions. The reserves here in issue are additional reserves set up under the policies containing disability provisions to meet future unaccrued and contingent liabilities under those provisions. These reserves are in all essentials like those involved in Equitable Life Assurance Society, 33 B. T. A. 708, [41] and which we there held met

the statutory description[4] of "reserve funds required by law."[5] One of the reserves in the Equitable case was called "additional reserve on noncancellable accident and health policies". That reserve is like the one here called the "active life reserve", and was maintained, in both cases, to meet anticipated but unaccrued claims under those policies where the insured had not incurred disability within the year. The other reserve in the Equitable case, called "reserve for unpaid and unresisted accident and health claims" is like the one this petitioner calls its "disabled life reserve". This reserve was maintained in both cases to provide for the payment of benefits expected to arise in the future from disabilities already incurred by policy holders. Deductions based on similar reserves were claimed in Monarch Life Insurance Co., 38 B. T. A. 716, under the designations of "additional reserves on noncancellable accident and health policies" which is like the "active life" reserves here, and "reserves for unpaid and unresisted claims" which is like the "disabled life" reserves in these cases. In Monarch Life we followed the Equitable case and held for the

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[4]Section 245 (a) (2) of the Revenue Acts of 1924 and 1926, and 203 (a) (2) of the Revenue Act of 1928 in the Equitable case. Section 203 (a) (2) of the Revenue Acts of 1932 and 1934 in these cases.

[5]As to one of the reserves the petitioner in the Equitable case conceded that 10 per cent of the amount set up was not a reserve required by law; our decision related to the remaining 90 per cent.

petitioner. In Pan-American Life Insurance Co., 38 B. T. A.....', we followed the above cited cases and held that a reserve for incurred disability benefits was a reserve required by law. That reserve is identical with the one that this petitioner calls a disabled life reserve. The policies involved in the Pan-American case, [42] as here, were life insurance policies containing provisions for disability benefits. The reserves there, as here, were carried to enable the company to pay benefits in cases where disabilities had occurred but where the benefits were not then payable. In that case the respondent allowed a deduction with respect to the reserve corresponding to what this petitioner calls its active life reserve, and in view of the allowance there was no issue concerning that reserve.

On authority of the above cases, we hold the petitioner entitled to deductions based on its active and disabled life reserves carried under the disability provisions of its life insurance policies.

Decision will be entered under Rule 50.

Entered Jan 4-1939. [43]

United States Board of Tax Appeals
Washington

Docket No. 85182

OREGON MUTUAL LIFE INSURANCE COMPANY,

Petitioner,

v.

COMMISSIONER OF INTERNAL REVENUE,

Respondent.

ORDER AND DECISION

On April 13, 1939, decision was entered in the above entitled proceeding, based on a proposed recomputation submitted by counsel for the respondent. The parties have now stipulated that the recomputation submitted was in error and have stipulated the correct tax liability.

In accordance with the stipulation and the joint motion of the parties, it is

Ordered: That the decision of April 13, 1939, be and hereby is vacated, and it is

Further Ordered and Decided: That the petition herein respecting income tax liability for the year 1933 was filed on June 5, 1936, that within two years of the filing of the petition tax was paid in the amount of $10,521.66; that the correct tax liability is $10,320.05 and therefore, according to the provisions of Section 809(c) of the Revenue Act of

1938 there is an overpayment for the year 1933 in the amount of $201.61.

[Seal] (Signed) C. R. ARUNDELL,
Member.

Entered Jun 12 1939. [44]

United States Board of Tax Appeals
Washington

Docket No. 88299

OREGON MUTUAL LIFE INSURANCE COMPANY,

Petitioner,

v.

COMMISSIONER OF INTERNAL REVENUE,

Respondent.

ORDER AND DECISION

On April 13, 1939, decision was entered in the above entitled proceeding, based on a proposed recomputation submitted by counsel for the respondent. The parties have now stipulated that the recomputation submitted was in error and have stipulated the correct tax liability.

In accordance with the stipulation and the joint motion of the parties, it is

Ordered: That the decision of April 13, 1939, be and hereby is vacated, and it is

Further Ordered and Decided: That for the year 1934 there is a deficiency in income tax in the amount of $1,333.48.

[Seal] (Signed) C. R. ARUNDELL
Member.

Entered Jun 12, 1939. [45]

In the United States Circuit Court of Appeals for the Ninth Circuit

B. T. A. Docket Nos. 85182, 88299

GUY T. HELVERING,
Commissioner of Internal Revenue,
Petitioner on Review,

v.

OREGON MUTUAL LIFE INSURANCE COMPANY,
Respondent on Review.

PETITION FOR REVIEW AND ASSIGNMENTS OF ERROR

To the Honorable Judges of the United States Circuit Court of Appeals for the Ninth Circuit:

Now Comes Guy T. Helvering, Commissioner of Internal Revenue, by his attorneys, Samuel O. Clark, Jr., Assistant Attorney General, J. P. Wenchel, Chief Counsel, Bureau of Internal Revenue,

and Charles E. Lowery, Special Attorney, Bureau of Internal Revenue, and respectfully shows:

I.

Jurisdiction

That he is the duly appointed, qualified and acting Commissioner of Internal Revenue of the United States, holding his office by virtue of the laws of the United States; that the respondent on review, Oregon Mutual Life Insurance Company (hereinafter referred to as the taxpayer) is a corporation organized and existing under the laws of the State of Oregon, having its home office in Portland, Oregon. The taxpayer executed and filed its Federal income tax returns for the calendar years 1933 and 1934 with the Collector of Internal Revenue for the Oregon District, whose office is located in the City of Portland, Oregon, and within the judicial [46] circuit of the United States Circuit Court of Appeals for the Ninth Circuit.

The Commissioner files this petition pursuant to the provisions of Sections 1001, 1002 and 1003 of the Revenue Act of 1926, as amended by Section 603 of the Revenue Act of 1928, as amended by Section 1101 of the Revenue Act of 1932, as amended by Section 519 of the Revenue Act of 1934.

II.

Prior Proceedings

On March 12, 1936, the Commissioner determined a deficiency in income tax against the taxpayer for

the calendar year 1933 in the amount of $996.30 and sent to the taxpayer, by registered mail, a notice of said deficiency in accordance with the provisions of Section 272(a) of the Revenue Act of 1932, as amended by Section 501 of the Revenue Act of 1934. Thereafter, and on June 5, 1936, the taxpayer filed an appeal from the said determination of the Commissioner with the United States Board of Tax Appeals.

On December 11, 1936, the Commissioner determined a deficiency in income tax against the taxpayer for the calendar year 1934 in the amount of $2,626.98 and sent to the taxpayer, by registered mail, a notice of said deficiency in accordance with the provisions of Section 272 (a) of the Revenue Act of 1934. Thereafter, and on March 4, 1937, the taxpayer filed an appeal from the said determination of the Commissioner with the United States Board of Tax Appeals. [47]

The cases were consolidated for hearing and were duly tried to the United States Board of Tax Appeals on July 8, 1937. On January 4, 1939, the Board entered its memorandum findings of fact and opinion pursuant to which opinion decisions were entered on June 12, 1939, wherein and whereby it was ordered and decided "that the petition herein respecting income tax liability for the year 1933 was filed on June 5, 1936, that within two years of the filing of the petition tax was paid in the amount of $10,521.66; that the correct tax liability is $10,320.05

and therefore, according to the provisions of Section 809(c) of the Revenue Act of 1938 there is an overpayment for the year 1933 in the amount of $201.61" and "that for the year 1934 there is a deficiency in income tax in the amount of $1,333.48."

III.

Nature of Controversy

The taxpayer is a mutual life insurance company engaged in the business of issuing life insurance on the level premium plan, including policies containing disability and double indemnity insurance. The disability policies, in addition to providing for the ordinary death benefits, provided that upon proof by the insured, before the age of 60 years, of total and permanent disability the taxpayer would waive the payment of premiums by the insured and would pay the insured annually an amount equal to one-tenth of the face of the policy during the continuance of the disability. Two reserves were carried by the taxpayer to meet its contingent liabilities under the disability provisions of its policies. One of these reserves was shown on the convention edition of its annual [48] statements as "Extra reserve for total and permanent disability benefits" commonly referred to as "active life reserves" and the other reserve was shown on the said convention edition of its annual statements as "Present value of amounts incurred but not yet due for total and permanent disability benefits" commonly referred to as "dis-

abled life reserves". The amounts of the latter reserves are determined by reference to combined mortality and disability tables. The so-called "active life reserve" is intended to meet future unaccrued and contingent liabilities under disability policies the holders of which have not incurred disabilities. As each active life becomes disabled the taxpayer creates out of the active life reserve another reserve, the disabled life reserve referred to above, to enable it to pay disability benefits to become due in the future.

The Commissioner allowed to the taxpayer as a deduction from its gross income in each of the taxable years 1933 and 1934 the prescribed statutory percentage deduction of the mean of the reserves for ordinary death benefits under both kinds of policies issued by the taxpayer, that is to say under policies without disability provisions and also under policies containing disability provisions. He did not allow, however, any deductions in respect of the additional "active life" and "disabled life" reserves maintained by the taxpayer. The United States Board of Tax Appeals disagreed with the Commissioner's determination in respect of the additional reserves and held that the "active life reserves" and the "disabled life reserves" meet the description of the statutory "reserve funds required by law" to which the prescribed percentage deduction applies. [49]

IV.
ASSIGNMENTS OF ERROR

The Commissioner avers that in the record and proceedings before the United States Board of Tax Appeals and in the opinion and final decisions rendered and entered by the United States Board of Tax Appeals, manifest error occurred and intervened to the prejudice of the Commissioner who now assigns the following errors and each of them, which he avers occurred in said record, proceedings, opinion, and final decisions so rendered and entered by the United States Board of Tax Appeals:

1. The United States Board of Tax Appeals erred in holding and deciding that the "Extra reserve for total and permanent disability benefits" maintained by the taxpayer at the beginning and end of each of the calendar years 1933 and 1934 constituted a "reserve fund required by law" within the meaning of Section 203(a) (2) of the Revenue Acts of 1932 and 1934.

2. The United States Board of Tax Appeals erred in holding and deciding that the reserve entitled "Present value of amounts incurred but not yet due for total and permanent disability benefits" and maintained by the taxpayer at the beginning and end of each of the calendar years 1933 and 1934 constituted a "reserve fund required by law" within the meaning of Section 203(a) (2) of the Revenue Acts of 1932 and 1934.

3. The United States Board of Tax Appeals erred in holding and deciding that the taxpayer's additional "active life" and "disabled life" reserves formed or constituted a proper basis for computing the deductions allowed by Section 203(a) (2) of the Revenue Acts of 1932 and 1934.

4. The United States Board of Tax Appeals erred in entering its [50] final order of redetermination that there is an overpayment of income tax for the year 1933 in the amount of $201.61.

5. The United States Board of Tax Appeals erred in entering its final order of redetermination that there is a deficiency in income tax for the year 1934 in the amount of $1,333.48.

6. The United States Board of Tax Appeals erred in failing and refusing to enter a final order of redetermination that there is a deficiency in income tax for the year 1933 in the amount of $996.30.

7. The United States Board of Tax Appeals erred in failing and refusing to enter a final order of redetermination that there is a deficiency in income tax for the year 1934 in the amount of $2,626.98.

8. The United States Board of Tax Appeals erred in that its decision is not supported by the evidence and is contrary to law.

9. The United States Board of Tax Appeals erred in that the evidence does not suport its findings of fact.

10. The United States Board of Tax Appeals erred in that the facts as found by it do not support its opinion and decisions.

Wherefore, the Commissioner petitions that the decisions of the United States Board of Tax Appeals be reviewed by the United States Circuit Court of Appeals for the Ninth Circuit, that a transcript of the record be prepared in accordance with law and with the rules of said Court and transmitted to the Clerk of said Court for filing, and that appropriate action be taken to the end that the errors complained of may be reviewed and corrected by said Court.

(Sgd) SAMUEL O. CLARK, JR.,
Assistant Attorney General.
J. P. WENCHEL
Chief Counsel, Bureau of
Internal Revenue. [51]

Of Counsel:
CHARLES E. LOWERY,
Special Attorney,
Bureau of Internal Revenue.

United States of America
District of Columbia—ss.

Charles E. Lowery, being duly sworn, says that he is a Special Attorney in the Bureau of Internal Revenue and as such is duly authorized to verify the foregoing petition for review; that he has read said petition and is familiar with the contents thereof;

that said petition is true of his own knowledge except as to the matters therein alleged on information and belief, and as to those matters he believes it to be true.

(Sgd) CHARLES E. LOWERY.

Sworn and subscribed to before me this 2nd day of August, 1939.

(Sgd) H. B. LINTON
Notary Public.

My commission expires April 1, 1942.

[Endorsed]: U.S.B.T.A. Filed Aug. 15, 1939. [52]

In the United States Circuit Court of Appeals
for the Ninth Circuit

[Title of Cause—Docket Nos. 85182, 88299.]

NOTICE OF FILING PETITION FOR REVIEW

To:

Wm. Marshall Bullitt, Esq.,
1706-1727 Inter-Southern Building,
Louisville, Kentucky.

You are hereby notified that the Commissioner of Internal Revenue did, on the 15th day of August, 1939, file with the Clerk of the United States Board of Tax Appeals, at Washington, D. C., a petition for review by the United States Circuit Court of Appeals for the Ninth Circuit, of the decisions of

the Board heretofore rendered in the above-entitled case. A copy of the petition for review and the assignments of error as filed is hereto attached and served upon you.

Dated this 15th day of August, 1939.

Signed J. P. WENCHEL,
Chief Counsel,
Bureau of Internal Revenue.

Personal service of the above and foregoing notice, together with a copy of the petition for review and assignments of error mentioned therein, is hereby acknowledged this 22 day of August, 1939.

Sgd WM. MARSHALL BULLITT
Attorney for Respondent
on Review.

[Endorsed]: U.S.B.T.A. Filed Aug. 24, 1939. [53]

In the United States Circuit Court of Appeals
for the Ninth Circuit

B. T. A. Docket Nos. 85182, 88299

GUY T. HELVERING,
Commissioner of Internal Revenue,
Petitioner on Review,

v.

OREGON MUTUAL LIFE INSURANCE COMPANY,
Respondent on Review.

NOTICE OF FILING PETITION FOR REVIEW

To:

Oregon Mutual Life Insurance Co.,
1029 S. W. Alder Street,
Portland, Oregon.

You are hereby notified that the Commissioner of Internal Revenue did, on the 15th day of August, 1939, file with the Clerk of the United States Board of Tax Appeals, at Washington, D. C., a petition for review by the United States Circuit Court of Appeals for the Ninth Circuit, of the decisions of the Board heretofore rendered in the above-entitled case. A copy of the petition for review and the assignments of error as filed is hereto attached and served upon you.

Dated this 15th day of August, 1939.

Signed. J. P. WENCHEL,
Chief Counsel, Bureau of
Internal Revenue.

Personal service of the above and foregoing notice, together with a copy of the petition for review and assignments of error mentioned therein, is hereby acknowledged this 28 day of August, 1939.

Sgd OREGON MUTUAL LIFE
INSURANCE COMPANY
Respondent on Review.
By L. W. R. CALDENWARD
Secretary

[Endorsed]: U.S.B.T.A. Filed Sept. 6, 1939. [54]

In the United States Circuit Court of Appeals
for the Ninth Circuit

[Title of Cause—Docket Nos. 85182, 88299.]

STATEMENT OF EVIDENCE

The following is a statement of evidence in narrative form in the above-entitled cause. These cases came on for hearing before the Honorable C. Rogers Arundell, Member of the United States Board of Tax Appeals, at Portland, Oregon, on July 8, 1937, the respondent on review (hereinafter called the "taxpayer") being represented by William Marshall Bullitt, Esq., and A. B. Winfree, Esq., and the Commissioner of Internal Revenue (hereinafter called the "Commissioner") being represented by John H. Pigg, Esq. The cases were consolidated for hearing and decision. Taxpayer's counsel thereupon conceded certain items involved in the two cases and thereby limited the scope of the hearing to the issues in respect of the "active life" and "disabled life" reserves now involved in the Commissioner's petition for a review of the Board's decision by the United States Circuit Court of Appeals for the Ninth Circuit.

MR. W. P. STALNAKER,

being first duly sworn, testified on behalf of the taxpayer as follows:

Direct Examination

I am vice president and treasurer of the Oregon Mutual Life Insurance [55] Company and have been

(Testimony of W. P. Stalnaker.)

with the company twenty years. I am familiar with its business. The Oregon Mutual Life Insurance Company conducts a life insurance business on the level premium plan, including the granting of disability, annuities, double indemnities, etc.

Taxpayer's counsel thereupon offered and there were received in evidence as taxpayer's Exhibits 1 to 12, inclusive, the following documents: (1) the taxpayer's income tax return for the taxable year 1933, and the taxpayer's (2) original and (3) amended income tax returns for the taxable year 1934, (4) Revenue Agent's report for the taxable year 1933 dated February 13, 1935, (5) Revenue Agent's report covering the taxable year 1933 dated August 26, 1935, (7) Revenue Agent's report covering taxable year 1934 dated May 12, 1936, (6) and (8) Commissioner's 90-day letters dated March 12, 1936 for the taxable year 1933 and December 11, 1936, for the taxable year 1934, (9) and (10) representative policy forms of Oregon Mutual Life Insurance Company; (11) and (12) copy each of American Experience Table of Mortality and Hunter's Combined Table of Mortality and Disability.

On the 31st day of December of 1932, 1933 and 1934, Oregon Mutual had in force insurance policies of the number, for the face amount of insurance, and with the amount of Reserves thereon, as follows:

[56]

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INSURANCE IN FORCE AND RESERVES THEREON

Year December 31	TOTAL Number Policies	TOTAL Face Amount of Insurance	TOTAL Reserves	WITHOUT DISABILITY BENEFITS Number of Policies	WITHOUT DISABILITY BENEFITS Face Amount of Insurance	WITHOUT DISABILITY BENEFITS Reserves	WITH DISABILITY BENEFITS Number of Policies	WITH DISABILITY BENEFITS Face Amount of Insurance	WITH DISABILITY BENEFITS Reserves*
1932	25,043	$54,316,747	$ 9,700,344.44	12,959	$27,148,741	$ 5,527,760.99	12,084	$27,168,006	$ 4,172,583.45
1933	24,382	51,901,281	9,802,171.16	13,322	27,310,596	5,759,193.51	11,060	24,590,685	4,042,977.65
1934	25,177	51,949,386	10,249,241.60	14,476	29,753,554	6,427,607.77	10,701	22,195,832	3,821,633.83

The total Reserves on policies WITH Disability Benefits consist of the following sub-divisions:

	RESERVES		
	Death Benefits etc.	Active Life Reserves*	Disabled Life Reserves
1932	$3,939,360.87	$108,347.16	$124,875.42
1933	3,811,556.18	110,314.43	121,107.04
1934	3,551,333.12	111,940.74	158,359.97

*The figures do not include Additional Deficiency Reserves for
1932 ($51,964.51);
1933 ($48,819.98); and
1934 ($41,313.07).

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(There was no cross examination of Mr. Stalnaker.)

MR. BRUCE E. SHEPHERD,

being first duly sworn, testified on behalf of the taxpayer as follows:

Direct Examination

I have been an actuary since 1922. I worked as an actuary for the New Jersey State Insurance Department for five years. Prior to that time I worked for three different insurance companies. I think I am familiar, as an actuary, with the plan of life insurance, the calculation and functions of reserves, how they are computed, and how the premiums are computed. [58]

A life insurance company is one engaged in the business of issuing life insurance and annuity contracts (including contracts of combined life, health and accident insurance, hereafter called Disability policies), by a cooperative arrangement, under which, in return for a fixed sum (called a premium) paid to the insurance company (hereafter called the Company) by the insured annually (or in instalments throughout the year) during the lifetime of the insured or for a specified period, the Company (including wherever that term is used herein the Oregon Mutual) agrees

[I] To pay (*a*) to the designated beneficiary at the death of the insured, or (*b*) to the

(Testimony of Bruce E. Shepherd.)

insured, if living—at the expiration of a period fixed in the policy (called a "*non*-Disability"* policy)—an amount named therein; and

[II] Under certain forms of policy (called a "Disability" policy), (1) to pay to the insured or designated beneficiary the benefits described in [I] *supra* and (2) to grant to the insured (or to the designated beneficiary) upon proof that the insured, before attaining age 60, becomes totally and permanently disabled (for brevity, hereafter called Disability) (*a*) a waiver of future premiums, and in certain cases also (*b*) an income during the continuance of the disability as provided in the policy.

All the policyholders pay their premiums into a common fund, the premiums paid being based on age, nature of risk, and the character of the insurance desired. [59] The Company manages the premium and other income as it is received, investing and reinvesting it; pays death and disability claims, maturing endowments, surrender values, loans, taxes, expenses, etc.; and it maintains an

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*[Printer's Note: In this paper italics are not used to denote errors, but are used where matter was italicized in the original transcript of record.]

(Testimony of Bruce E. Shepherd.)

inviolable fund—the Reserve as required by law and calculated in accordance with actuarial principles for the future protection of policyholders.

(1). Calculation of Premiums.

There are numerous forms of life insurance policies, e.g., Term, Whole Life, Limited Payment Life, Endowment, etc., providing for Death Benefits, either with, or without, Disability Benefits; and in event the policy is *with* Disability Benefits, the provisions for such Benefits are contained in the policy.

A premium is fixed by a life insurance company for each age at entry and for each form of policy; but such premium could not be charged if only one or a few policies were issued. In its very creation, the premium rate is itself an average; and in its calculation it is fundamentally assumed that a very large number of homogeneous policies will be simultaneously issued at every age and on every form—a number large enough (1) to avoid accidental variations in mortality and disability due to chance, and (2) to produce the average effect assumed in the Mortality and Disability Tables, as hereafter explained.

Although in actual practice, it never happens that at each age and on each form a large enough number of policies to produce the average effect is issued simultaneously, still when taken all together, policies issued on all forms and at all ages are sufficiently numerous to produce the average effect in the aggregate—and the ultimate result in the aggre-

(Testimony of Bruce E. Shepherd.)

gate is substantially the same as if each group of homogeneous policies were large enough to form an independent unit by itself. [60]

A Company may act, and in ordinary discussion language may be used, as if the Company were treating with a single policy, but such acts and such language are merely customary. Underlying all its acts, and whatever the language used, it is necessarily assumed that the Company is treating, not with an individual policy, but with a large number of homogeneous policies. The fact that, in practice, each such group of homogeneous policies is not in itself large enough is of no importance, because the aggregate of all the groups, in actual practice, is sufficiently large to produce substantially the same aggregate effect, as if each group were itself sufficiently large.

Therefore, for every age and every plan of insurance, every Company (including Oregon Mutual) engaged in the business of life insurance, fundamentally assumes in the first place, that a very large number of persons of the *same age,* will *at the same time,* take out *exactly similar* policies, of exactly the *same amount,* and will pay therefor exactly the *same* premium; and the Company then determines the amount which shall be charged as a premium (per $1,000 face amount of policy) for the particular age and plan of insurance desired, by a strictly mathematical calculation based on certain definite assumptions.

(Testimony of Bruce E. Shepherd.)

The Method of Calculating the Level Premiums for All Policies of Life Insurance With Death Benefits Only.

For all life insurance policies with Death Benefits only, the Company assumes *three* things, to-wit:

(*a*) That the very large number of persons fundamentally assumed (say 78,106* persons) will die [61] strictly in accordance with some specified Mortality Table (say American Experience Table of Mortality), so many each year, no more and no less, but not the same number each year, and that the deaths will take place at the end of successive years;

(*b*) That the Company will earn some specified rate of Interest (say 3½%) on its funds;

(*c*) That the Company's Expenses will be a certain sum each year.

Upon those assumptions, and by a mathematical calculation, the Company ascertains the level premium for all policies of life insurance with Death Benefits only.

All so-called "old-line" life insurance companies (of which Oregon Mutual is one) calculate the premiums for every age, and for every plan of insur-

*78,106 is here chosen (instead of 100,000), merely as a matter of mathematical convenience in computation, because 78,106 happens to be the number of persons shown alive at age 40 in the American Experience Table out of an original 100,000 persons at age 10. Exactly the same kind of computation is made for every other age and every form of policy.

(Testimony of Bruce E. Shepherd.)

ance; in accordance with the same basic actuarial principles which may be illustrated by the following example:

Suppose it is desired to calculate the annual level premium for a Whole Life policy with Death Benefits only for a person aged 40.**

Upon the foregoing assumptions (*a*), (*b*) and (*c*), the Oregon Mutual determined for a Whole Life policy with Death Benefits only, issued at age 40, an annual level premium of $31.65 per $1,000 face amount of insurance, as follows:

In calculating the mathematical level premium for the above mentioned specific example, the Company assumes three things, to-wit: [62]

**In actual practice, the Company (as a time saving device) first calculates the level "net" premium (as mathematically outlined hereafter) on assumptions (*a*) and (*b*)—*without simultaneously* making the required assumption (*c*) as to Expenses; the Company then *adds* to the mathematical level "net" premium an amount called the "Loading," the amount of which is solely determined by the Company's above mentioned assumption (*c*) as to what its future Expenses will be. The sum of the level "net" premium *plus* the "Loading," constitutes the total "gross" premium which is charged by the Company and is paid by the policyholder; it is usually simply called the Premium.

This assumption regarding Expenses is to provide the money to pay agents' commissions, salaries, rent, stationery, printing and other ordinary expenses of running the business as well as taxes, losses and various other extraordinary and unforeseen contingencies.

(Testimony of Bruce E. Shepherd.)

(*a*) That the very large number of persons fundamentally assumed, p. 64 note *supra*, (say 78,106 persons) will die strictly in accordance with some specified Mortality Table (say American Experience Table of Mortality); and, for convenience, that the deaths will take place at the end of successive years;

(*b*) That the Company will, through a long period of years, earn some specified rate of interest on its funds (say 3½%) per annum;

(*c*) That its Expenses will be a certain sum (per $1,000 insurance) each year.

Tabulation of Deaths and of Payments for Death Claims

From the Mortality Table, the Company ascertains how many of the 78,106 persons aged 40 will *die* during the first year the policies are in force (i.e. 765); how many will die during the second policy year (i.e. 774); and so on, until they are all dead—which, according to the American Experience Table, will be at age 96, when the last three survivors of the 78,106 will have died.

The Company then tabulates how much money it must pay out each successive year in $1,000 death claims to the beneficiaries of such of the 78,106 as die. It finds that it must pay out $765,000 at the end of the first year, $774,000 at the end of the next year, and so on, until finally it pays $3,000 to the beneficiaries of the last three persons who die be-

tween age 95 and 96—an aggregate of $78,106,000 paid out to the beneficiaries of 78,106 persons, spread over a period of 56 years.

It then discounts each of these separate sums at 3½% compound interest back to the beginning of the first policy year.

For example, as it has to pay out $765,000 in death claims at the end of the first policy year, it discounts that sum back at 3½% to the beginning of the year, and finds that it amounts to $739,130.43; which means that if you have $739,130.43 at the beginning of the year and invest it at 3½%, it will amount at the end of the year to exactly $765,000. [63]

The Company makes a similar calculation with respect to each of the successive yearly aggregate sums that it must pay out in Death Claims. It thus ascertains the 56 separate sums of money that it must have on hand at the beginning of the first policy year, which, if kept invested at 3½% per annum compounded annually, will be just sufficient to pay the $78,106,000 aggregate of the 78,106 Death Claims spread through 56 years.

The aggregate of those 56 sums, so discounted, is $32,026,114.60; which if invested, as a whole, at the beginning of the first policy year at 3½%, compounded annually, will be $78,106,000, to-wit, exactly sufficient to pay $1,000 at the end of the year of death of each of the 78,106 persons as such deaths shall from year to year successively occur, according to the Mortality Table.

(Testimony of Bruce E. Shepherd.)

The present value of the $78,106,000 future payments is, therefore, $32,026,114.60.

Tabulation of the Survivors and of the Receipts Therefrom

The Company next tabulates the number of persons of the 78,106 who will be *alive* at the beginning of each successive policy year to pay premiums, i.e., 78,106 *minus* all those who have previously died.

As 765 die in the first policy year, there will be 77,341 living at the end of the first policy year (i.e. at the beginning of the second year); and, similarly, 76,567 will be living at the beginning of the third policy year, and so on. It then assumes (merely for convenience of computation) that each of the 78,106 will pay $1.00 at the beginning of the first policy year, and thus in the first year, it will receive $78,106; that each of the survivors will, at the beginning of the second policy year, pay $1.00, and thus, at the beginning of the second year, it will receive $77,341; and that, at the beginning of each successive policy year up to and including the year of death, each survivor will likewise pay $1.00. [64]

The Company then discounts each of these sums ($78,106, $77,341, $76,567, etc.) at 3½%, compounded annually, back to the beginning of the first policy year. The aggregate of these sums so discounted is $1,362,648.05; that is to say, if each of the 78,106 persons pays $1.00 a year as long as he lives and the collections of each year are discounted back, they amount to $1,362,648.05.

(Testimony of Bruce E. Shepherd.)

$1,362,648.05 is, therefore, the *present* value of all the payments which will be received from 78,106 persons, each paying $1.00 per year until death.

Under assumption (*c*) supra, the Company assumes that its Expenses each year will be $8.15 per $1,000 of insurance. The Company tabulates the amounts which each year the survivors must pay for the Company's Expenses at the rate of $8.15 by each survivor per year. It similarly discounts those annual payments (aggregating $18,248,230.95 over 56 years) for Expenses back to the beginning of the first policy year. The aggregate of these sums required for Expenses, so discounted, is $11,101,-697.95; that is to say, if each of the 78,106 persons pays $8.15 a year for Expenses as long as he lives, and the collections of each year are discounted back, they amount to $11,101,697.95.

$11,101,697.95 is therefore the *present value* of all the $18,248,230.95 payments which will be received from 78,106 persons, each paying $8.15 per year for Expenses until he dies.

Ascertainment of the Annual Premium

As we have seen, the Company must, in the aggregate, pay out in a period of 56 years, just $78,106,000 in Death Claims, *plus* $18,248,230.95 for Expenses—a total payment of $96,354,230.95.

(1) $32,026,114.60 is the present discounted value, at 3½% compounded interest per annum, of all the sums [65] ($78,106,000) it will ever have to

(Testimony of Bruce E. Shepherd.)

pay in Death Claims to the beneficiaries of 78,106 persons, each holding a $1,000 policy. In other words, the *present value* of the $78,106,000 which it will have to *pay,* is $32,026,114.60.

$11,101,697.95 is the present discounted value, at 3½% compound interest per annum, of all the sums ($18,248,230.95) it will ever have to pay for Expenses. In other words, the present value of the $18,248,230.95 which it will have to pay for Expenses is $11,101,697.95.

The *present value* of all the Company will have to pay out for Death Claims and Expenses is $43,127,812.55.

(2) Likewise, $1,362,648.05 is the present discounted value of the total sum which the Company will ever *receive,* if each person pays only $1.00 a year until death; that is to say, the *present value* of the sums which the Company will *receive* at a "level" premium rate of $1.00 per survivor per annum is $1,362,648.05.

(3) Now, the present value, or discounted value, of the sums to be *received,* in order to meet the Death claims and Expenses, must be *exactly equal* to the present value, or discounted value, of the sums to be *paid out* in Death Claims and for Expenses. Therefore, since the present value of the sum of the Death Claims and of the Expenses is *greater* than the present value of the total payments of $1.00 per survivor per annum, $1.00 per year is

(Testimony of Bruce E. Shepherd.)

not enough for each of the 78,106 persons (and the survivors thereof) to pay to the Company, in order to furnish it with sufficient funds to pay the Expenses and $1,000 to each beneficiary at the end of the year in which each of the 78,106 policyholders dies.

By simple proportion [the *present value* of all the sums the Company will have to *pay* for Expenses and in Death Claims to the beneficiaries (that is $43,127,812.55) *divided* by the *present value* of the total sums which the Company [66] will receive at a "level" premium rate of $1.00 per survivor per annum (that is $1,362,648.05)] each person must pay $\frac{\$43,127,812.55}{1,362,648.05}$ or $31.65 per year, which is the annual premium per $1,000 face amount for a Whole Life Policy with Death Benefits only, issued at age 40.

These calculations are tabulated as shown in Table A on the page following.

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TABLE A

Calculation of Premium and Reserves for a Whole Life Policy with Death Benefits only, issued at age 40 for $1,000, American Experience Ta

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]
Policy Year	Age at Beginning of Year	Number of Survivors at beginning of each year at each age from age 40 on	Number of Persons out of an original group of 78,106 at age 40 dying each year from age 40 on	Death Claims in each Policy Year	Expenses (as assumed)	Discounted Value at 3½% of sums payable for death claims	Discounted Value at 3½% of amount paid by survivors for Expenses	Discounted Value at 3½% of amount paid by survivors, each paying $1.00	Gross Premiums paid by survivors each year	Expenses paid by survivors (same as [6])	Net Premiums paid by survivors each year	Interest at 3½% on [12] for one year	[12]+[13] Net Premiums paid by survivors with interest at 3½% for one year	Interest at 3½% for one year on total fund [17] at end of previous year	[14]+[15]
1	40	78,106	765	$ 765,000	$636,341.30	$739,130.43	$636,341.30	$78,106.00	$2,472,054.90	$636,341.30	$1,835,713.60	$64,249.98	$1,899,963.58	$00,000.00	$1,899,963.58
2	41	77,341	774	774,000	630,108.73	722,537.28	608,800.70	74,725.60	2,447,842.65	630,108.73	1,817,733.92	63,620.67	1,881,354.59	39,723.73	1,921,078.32
3	42	76,567	785	785,000	623,802.83	708,025.03	582,326.62	71,476.11	2,423,345.55	623,802.83	1,799,542.72	62,983.97	1,862,526.69	79,871.47	1,942,398.16
4	43	75,782	797	797,000	617,407.32	694,539.45	556,866.03	68,351.01	2,398,500.30	617,407.32	1,781,092.98	62,338.17	1,843,431.15	120,380.40	1,963,811.55
5	44	74,985	812	812,000	610,914.04	683,682.20	532,376.29	65,345.10	2,373,275.25	610,914.04	1,762,361.21	61,682.63	1,824,043.84	161,218.80	1,985,262.64
6	45	74,173	828	828,000	604,298.56	673,578.54	508,803.17	62,451.68	2,347,575.45	604,298.56	1,743,276.89	61,014.70	1,804,291.59	202,283.00	2,006,574.59
7	46	73,345	848	848,000	597,552.72	666,520.34	486,109.52	59,666.21	2,321,369.25	597,552.72	1,723,816.53	60,333.55	1,784,150.08	243,533.11	2,027,683.19
8	47	72,497	870	870,000	590,643.93	660,688.05	464,240.79	56,981.99	2,294,530.05	590,643.93	1,703,886.12	59,635.99	1,763,522.11	284,822.02	2,048,344.13
9	48	71,627	896	896,000	583,555.91	657,422.95	443,159.10	54,394.38	2,266,994.55	583,555.91	1,683,438.64	58,920.31	1,742,358.95	326,064.07	2,068,423.02
10	49	70,731	927	927,000	576,256.07	657,167.74	422,816.93	51,897.52	2,238,636.15	576,256.07	1,662,380.08	58,183.32	1,720,563.40	367,098.87	2,087,662.27
11	50	69,804	962	962,000	568,703.66	658,917.79	403,164.72	49,485.37	2,209,296.60	568,703.66	1,640,592.94	57,420.71	1,698,013.65	407,722.04	2,105,735.69
12	51	68,842	1,001	1,001,000	560,866.10	662,445.09	384,162.83	47,153.03	2,178,849.30	560,866.10	1,617,983.20	56,629.41	1,674,612.61	447,752.80	2,122,365.41
13	52	67,841	1,044	1,044,000	552,710.80	667,537.93	365,774.78	44,896.03	2,147,167.65	552,710.80	1,594,456.85	55,806.04	1,650,262.89	487,000.61	2,137,263.50
14	53	66,797	1,091	1,091,000	544,205.18	673,999.93	347,967.05	42,710.27	2,114,125.05	544,205.18	1,569,919.87	54,947.23	1,624,867.10	525,264.81	2,150,131.91
15	54	65,706	1,143	1,143,000	535,316.64	682,245.98	330,708.37	40,591.97	2,079,594.90	535,316.64	1,544,278.26	54,049.78	1,598,328.04	562,334.43	2,160,662.47
16	55	64,563	1,199	1,199,000	526,004.45	691,470.40	313,967.12	38,537.05	2,043,418.95	526,004.45	1,517,414.50	53,109.51	1,570,524.01	597,952.60	2,168,476.61
17	56	63,364	1,260	1,260,000	516,236.01	702,076.77	297,716.36	36,542.39	2,005,470.60	516,236.01	1,489,234.59	52,123.22	1,541,357.81	631,884.30	2,173,242.1
18	57	62,104	1,325	1,325,000	505,970.60	713,328.51	281,928.73	34,604.58	1,965,591.60	505,970.60	1,459,621.00	51,086.74	1,510,707.74	663,847.77	2,174,555.51
19	58	60,779	1,394	1,394,000	495,175.63	725,097.03	266,583.32	32,721.05	1,923,655.35	495,175.63	1,428,479.72	49,996.77	1,478,476.49	693,582.19	2,172,058.68
20	59	59,385	1,468	1,468,000	483,818.50	737,766.72	251,660.95	30,889.45	1,879,535.25	483,818.50	1,395,716.75	48,850.14	1,444,566.89	720,814.26	2,165,381.15
21	60	57,917	1,546	1,546,000	471,858.49	750,692.61	237,139.98	29,107.12	1,833,073.05	471,858.49	1,361,214.56	47,642.55	1,408,857.11	745,222.59	2,154,079.70
22	61	56,371	1,628	1,628,000	459,262.99	763,777.23	223,004.74	27,372.11	1,784,142.15	459,262.99	1,324,879.16	46,370.81	1,371,249.97	766,505.39	2,137,755.36
23	62	54,743	1,713	1,713,000	445,999.43	776,478.30	209,240.91	25,682.70	1,732,615.95	445,999.43	1,286,616.52	45,031.56	1,331,648.08	784,346.82	2,115,994.90
24	63	53,030	1,800	1,800,000	432,043.36	788,322.84	195,839.05	24,037.73	1,678,399.50	432,043.36	1,246,356.14	43,622.42	1,289,978.56	798,451.64	2,088,430.20
25	64	51,230	1,889	1,889,000	417,378.49	799,324.67	182,793.89	22,436.54	1,621,429.50	417,378.49	1,204,051.01	42,141.78	1,246,192.79	808,546.73	2,054,739.52
26	65	49,341	1,980	1,980,000	401,988.53	809,498.59	170,100.24	20,878.49	1,561,642.65	401,988.53	1,159,654.12	40,587.87	1,200,241.99	814,347.59	2,014,589.58
27	66	47,361	2,070	2,070,000	385,857.17	817,675.35	157,752.95	19,362.97	1,498,975.65	385,857.17	1,113,118.48	38,959.17	1,152,077.65	815,558.21	1,967,635.86
28	67	45,291	2,158	2,158,000	368,992.57	823,610.06	145,756.58	17,890.50	1,433,460.15	368,992.57	1,064,467.58	37,256.39	1,101,723.97	811,975.47	1,913,699.44
29	68	43,133	2,243	2,243,000	351,411.02	827,102.12	134,117.54	16,461.91	1,365,159.45	351,411.02	1,013,748.43	35,481.16	1,049,229.59	803,424.97	1,852,654.56
30	69	40,890	2,321	2,321,000	333,136.96	826,922.19	122,843.64	15,078.11	1,294,168.50	333,136.96	961,031.54	33,636.10	994,667.64	789,762.89	1,784,430.53
31	70	38,569	2,391	2,391,000	314,227.43	823,054.76	111,952.45	13,741.30	1,220,708.85	314,227.43	906,481.42	31,726.85	938,208.27	770,982.94	1,709,191.21
32	71	36,178	2,448	2,448,000	294,747.59	814,179.61	101,461.07	12,453.57	1,145,033.70	294,747.59	850,286.11	29,760.01	880,046.12	747,119.63	1,627,165.75
33	72	33,730	2,487	2,487,000	274,803.37	799,179.32	91,396.77	11,218.25	1,067,554.50	274,803.37	792,751.13	27,746.29	820,497.42	718,390.44	1,538,887.86
34	73	31,243	2,505	2,505,000	254,541.41	777,742.50	81,795.03	10,039.71	988,840.95	254,541.41	734,299.54	25,700.48	760,000.02	685,206.52	1,445,206.54
35	74	28,738	2,501	2,501,000	234,132.80	750,242.14	72,692.63	8,922.47	909,557.70	234,132.80	675,424.90	23,639.87	699,064.77	648,113.76	1,347,178.53
36	75	26,237	2,476	2,476,000	213,756.77	717,625.81	64,122.08	7,870.50	830,401.05	213,756.77	616,644.28	21,582.55	638,226.83	607,729.99	1,245,956.82
37	76	23,761	2,431	2,431,000	193,584.43	680,756.85	56,107.10	6,886.72	752,035.65	193,584.43	558,451.22	19,545.79	577,997.01	564,678.49	1,142,675.50
38	77	21,330	2,369	2,369,000	173,778.71	640,961.23	48,663.53	5,973.07	675,094.50	173,778.71	501,315.79	17,546.05	518,861.84	519,587.11	1,038,448.95
39	78	18,961	2,291	2,291,000	154,478.11	598,896.05	41,795.90	5,130.13	600,115.65	154,478.11	445,637.54	15,597.31	461,234.85	473,017.83	934,252.68
40	79	16,670	2,196	2,196,000	135,812.99	554,649.14	35,503.21	4,357.74	527,605.50	135,812.99	391,792.51	13,712.74	405,505.25	425,531.68	831,036.93
41	80	14,474	2,091	2,091,000	117,921.85	510,269.60	29,783.81	3,655.74	458,102.10	117,921.85	340,180.25	11,906.31	352,086.56	377,757.98	729,844.54
42	81	12,383	1,964	1,964,000	100,886.16	463,070.16	24,619.39	3,021.84	391,921.95	100,886.16	291,035.79	10,186.25	301,222.04	330,117.52	631,339.56
43	82	10,419	1,816	1,816,000	84,885.16	413,695.50	20,014.15	2,456.59	329,761.35	84,885.16	244,876.19	8,570.67	253,446.86	283,474.42	536,921.28
44	83	8,603	1,648	1,648,000	70,089.93	362,728.61	15,966.90	1,959.82	272,284.95	70,089.93	202,195.02	7,076.83	209,271.85	238,706.65	447,978.50
45	84	6,955	1,470	1,470,000	56,663.43	312,609.08	12,471.75	1,530.81	220,125.75	56,663.43	163,462.32	5,721.18	169,183.50	196,705.92	365,889.42
46	85	5,485	1,292	1,292,000	44,687.12	265,464.48	9,503.13	1,166.43	173,600.25	44,687.12	128,913.13	4,511.96	133,425.09	158,062.03	291,487.12
47	86	4,193	1,114	1,114,000	34,161.00	221,150.92	7,018.99	861.52	132,708.45	34,161.00	98,547.45	3,449.16	101,996.61	123,044.08	225,040.69
48	87	3,079	933	933,000	25,085.07	178,955.41	4,979.88	611.24	97,450.35	25,085.07	72,365.28	2,532.78	74,898.06	91,930.51	166,828.57
49	88	2,146	744	744,000	17,483.78	137,878.27	3,353.50	411.62	67,920.90	17,483.78	50,437.12	1,765.30	52,202.42	65,114.53	117,316.95
50	89	1,402	555	555,000	11,422.30	99,374.63	2,116.78	259.83	44,373.30	11,422.30	32,951.00	1,153.29	34,104.29	43,180.62	77,284.91
51	90	847	385	385,000	6,900.64	66,604.40	1,235.58	151.66	26,807.55	6,900.64	19,906.91	696.74	20,603.65	26,460.58	47,064.23
52	91	462	246	246,000	3,763.98	41,118.46	651.16	79.93	14,622.30	3,763.98	10,858.32	380.04	11,238.36	14,632.82	25,871.18
53	92	216	137	137,000	1,759.78	22,194.94	294.14	36.11	6,836.40	1,759.78	5,076.62	177.68	5,254.30	6,928.32	12,182.62

TABLE A

Premium and Reserves for a Whole Life Policy with Death Benefits only, issued at age 40 for $1,000, American Experience Table, 3½%

[4] Number of Persons out of an original group of 78,106 at age 40 dying each year from age 40 on	[5] Death Claims in each Policy Year	[6] Expenses (as assumed)	[7] Discounted Value at 3½% of sums payable for death claims	[8] Discounted Value at 3½% of amount paid by survivors for Expenses	[9] Discounted Value at 3½% of amount paid by survivors, each paying $1.00	[10] Gross Premiums paid by survivors each year	[11] Expenses paid by survivors (same as [6])	[12] Net Premiums paid by survivors each year	[13] Interest at 3½% on [12] for one year	[14] [12]+[13] Net Premiums paid by survivors with interest at 3½% for one year	[15] Interest at 3½% for one year on total fund [17] at end of previous year	[16] [14]+[15]	[17] Total fund at end of each year (Reserve) [17] (previous year)+ [16]—[5]	[18] Individual Reserve at end of each year for each survivor
765	$ 765,000	$636,341.30	$739,130.43	$636,341.30	$78,106.00	$2,472,054.90	$636,341.30	$1,835,713.60	$64,249.98	$1,899,963.58	$00,000.00	$1,899,963.58	$1,134,963.58	$14.68
774	774,000	630,108.73	722,537.28	608,800.70	74,725.60	2,447,842.65	630,108.73	1,817,733.92	63,620.67	1,881,354.59	39,723.73	1,921,078.32	2,282,041.90	29.80
785	785,000	623,802.83	708,025.03	582,326.62	71,476.11	2,423,345.55	623,802.83	1,799,542.72	62,983.97	1,862,526.69	79,871.47	1,942,398.16	3,439,440.06	45.39
797	797,000	617,407.32	694,539.45	556,866.03	68,351.01	2,398,500.30	617,407.32	1,781,092.98	62,338.17	1,843,431.15	120,380.40	1,963,811.55	4,606,251.61	61.43
812	812,000	610,914.04	683,682.20	532,376.29	65,345.10	2,373,275.25	610,914.04	1,762,361.21	61,682.63	1,824,043.84	161,218.80	1,985,262.64	5,779,514.25	77.92
828	828,000	604,298.56	673,578.54	508,803.17	62,451.68	2,347,575.45	604,298.56	1,743,276.89	61,014.70	1,804,291.59	202,283.00	2,006,574.59	6,958,088.84	94.87
848	848,000	597,552.72	666,520.34	486,109.52	59,666.21	2,321,369.25	597,552.72	1,723,816.53	60,333.55	1,784,150.08	243,533.11	2,027,683.19	8,137,772.03	112.25
870	870,060	590,643.93	660,688.05	464,240.79	56,981.99	2,294,530.05	590,643.93	1,703,886.12	59,635.99	1,763,522.11	284,822.02	2,048,344.13	9,316,116.16	130.06
896	896,000	583,555.91	657,422.95	443,159.10	54,394.38	2,266,994.55	583,555.91	1,683,438.64	58,920.31	1,742,358.95	326,064.07	2,068,423.02	10,488,539.18	148.29
927	927,000	576,256.07	657,167.74	422,816.93	51,897.52	2,238,636.15	576,256.07	1,662,380.08	58,183.32	1,720,563.40	367,098.87	2,087,662.27	11,649,201.45	166.89
962	962,000	568,703.66	658,917.79	403,164.72	49,485.37	2,209,296.60	568,703.66	1,640,592.94	57,420.71	1,698,013.65	407,722.04	2,105,735.69	12,792,937.14	185.83
1,001	1,001,000	560,866.10	662,445.09	384,162.83	47,153.03	2,178,849.30	560,866.10	1,617,983.20	56,629.41	1,674,612.61	447,752.80	2,122,365.41	13,914,302.55	205.10
1,044	1,044,000	552,710.80	667,537.93	365,774.78	44,896.03	2,147,167.65	552,710.80	1,594,456.85	55,806.04	1,650,262.89	487,000.61	2,137,263.50	15,007,566.05	224.68
1,091	1,091,000	544,205.18	673,999.93	347,967.05	42,710.27	2,114,125.05	544,205.18	1,569,919.87	54,947.23	1,624,867.10	525,264.81	2,150,131.91	16,066,697.96	244.52
1,143	1,143,000	535,316.64	682,245.98	330,708.87	40,591.97	2,079,594.90	535,316.64	1,544,278.26	54,049.78	1,598,328.04	562,334.43	2,160,662.47	17,084,360.43	264.62
1,199	1,199,000	526,004.45	691,470.40	313,967.12	38,537.05	2,043,418.95	526,004.45	1,517,414.50	53,109.51	1,570,524.01	597,952.60	2,168,476.61	18,053,837.04	284.92
1,260	1,260,000	516,236.01	702,076.77	297,716.36	36,542.39	2,005,470.60	516,236.01	1,489,234.59	52,123.22	1,541,357.81	631,884.30	2,173,242.11	18,967,079.15	305.41
1,325	1,325,000	505,970.60	713,328.51	281,928.73	34,604.58	1,965,591.60	505,970.60	1,459,621.00	51,086.74	1,510,707.74	663,847.77	2,174,555.51	19,816,634.66	326.04
1,394	1,394,000	495,175.63	725,097.03	266,583.32	32,721.05	1,923,655.35	495,175.63	1,428,479.72	49,996.77	1,478,476.49	693,582.19	2,172,058.68	20,594,693.34	346.80
1,468	1,468,000	483,818.50	737,766.72	251,660.95	30,889.45	1,879,535.25	483,818.50	1,395,716.75	48,850.14	1,444,566.89	720,814.26	2,165,381.15	21,292,074.49	367.63
1,546	1,546,000	471,858.49	750,692.61	237,139.98	29,107.12	1,833,073.05	471,858.49	1,361,214.56	47,642.55	1,408,857.11	745,222.59	2,154,079.70	21,900,154.19	388.50
1,628	1,628,000	459,262.99	763,777.23	223,004.74	27,372.11	1,784,142.15	459,262.99	1,324,879.16	46,370.81	1,371,249.97	766,505.39	2,137,755.36	22,409,909.55	409.37
1,713	1,713,000	445,999.43	776,478.30	209,240.91	25,682.70	1,732,615.95	445,999.43	1,286,616.52	45,031.56	1,331,648.08	784,346.82	2,115,994.90	22,812,904.45	430.19
1,800	1,800,000	432,043.36	788,322.84	195,839.05	24,037.73	1,678,399.50	432,043.36	1,246,356.14	43,622.42	1,289,978.56	798,451.64	2,088,430.20	23,101,334.65	450.93
1,889	1,889,000	417,378.49	799,324.67	182,793.89	22,436.54	1,621,429.50	417,378.49	1,204,051.01	42,141.78	1,246,192.79	808,546.73	2,054,739.52	23,267,074.17	471.56
1,980	1,980,000	401,988.53	809,498.59	170,100.24	20,878.49	1,561,642.65	401,988.53	1,159,654.12	40,587.87	1,200,241.99	814,347.59	2,014,589.58	23,301,663.75	492.00
2,070	2,070,000	385,857.17	817,675.35	157,752.95	19,362.97	1,498,975.65	385,857.17	1,113,118.48	38,959.17	1,152,077.65	815,558.21	1,967,635.86	23,199,299.61	512.23
2,158	2,158,000	368,992.57	823,610.06	145,756.58	17,890.50	1,433,460.15	368,992.57	1,064,467.58	37,256.39	1,101,723.97	811,975.47	1,913,699.44	22,954,999.05	532.19
2,243	2,243,000	351,411.02	827,102.12	134,117.54	16,461.91	1,365,159.45	351,411.02	1,013,748.43	35,481.16	1,049,229.59	803,424.97	1,852,654.56	22,564,653.61	551.84
2,321	2,321,000	333,136.96	826,922.19	122,843.64	15,078.11	1,294,168.50	333,136.96	961,031.54	33,636.10	994,667.64	789,762.89	1,784,430.53	22,028,084.14	571.14
2,391	2,391,000	314,227.43	823,054.76	111,952.45	13,741.30	1,220,708.85	314,227.43	906,481.42	31,726.85	938,208.27	770,982.94	1,709,191.21	21,346,275.35	590.04
2,448	2,448,000	294,747.59	814,179.61	101,461.07	12,453.57	1,145,033.70	294,747.59	850,286.11	29,760.01	880,046.12	747,119.63	1,627,165.75	20,585,441.10	608.52
2,487	2,487,000	274,803.37	799,179.32	91,396.77	11,218.25	1,067,554.50	274,803.37	792,751.13	27,746.29	820,497.42	718,390.44	1,538,887.86	19,677,328.96	626.62
2,505	2,505,000	254,541.41	777,742.50	81,795.03	10,039.71	988,840.95	254,541.41	734,299.54	25,700.48	760,000.02	685,206.52	1,445,206.54	18,517,535.50	644.36
2,501	2,501,000	234,162.80	750,242.14	72,692.63	8,922.47	909,557.70	234,132.80	675,424.90	23,639.87	699,064.77	648,113.76	1,347,178.53	17,363,714.03	661.80
2,476	2,476,000	213,756.77	717,625.81	64,122.08	7,870.50	830,401.05	213,756.77	616,644.28	21,582.55	638,226.83	607,729.99	1,245,956.82	16,133,670.85	679.00
2,431	2,431,000	193,584.43	680,756.85	56,107.10	6,886.72	752,035.65	193,584.43	558,451.22	19,545.79	577,997.01	564,678.49	1,142,675.50	14,845,346.35	695.98
2,369	2,369,000	173,778.71	640,961.23	48,663.53	5,973.07	675,094.50	173,778.71	501,315.79	17,546.05	518,861.84	519,587.11	1,038,448.95	13,514,795.30	712.77
2,291	2,291,000	154,478.11	598,896.05	41,795.90	5,130.13	600,115.65	154,478.11	445,637.54	15,597.31	461,234.85	473,017.83	934,252.68	12,158,047.98	729.34
2,196	2,196,000	135,812.99	554,649.14	35,503.21	4,357.74	527,605.50	135,812.99	391,792.51	13,712.74	405,505.25	425,531.68	831,036.93	10,793,084.91	745.69
2,091	2,091,000	117,921.85	510,269.60	29,783.81	3,655.74	458,102.10	117,921.85	340,180.25	11,906.31	352,086.56	377,757.98	729,844.54	9,431,929.45	761.68
1,964	1,964,000	100,886.16	463,070.16	24,619.39	3,021.84	391,921.95	100,886.16	291,035.79	10,186.25	301,222.04	330,117.52	631,339.56	8,099,269.01	777.36
1,816	1,816,000	84,885.16	413,695.50	20,014.15	2,456.59	329,761.35	84,885.16	244,876.19	8,570.67	253,446.86	283,474.42	536,921.28	6,820,190.29	792.77
1,648	1,648,000	70,089.93	362,728.61	15,966.90	1,959.82	272,284.95	70,089.93	202,195.02	7,076.83	209,271.85	238,706.65	447,978.50	5,620,168.79	808.08
1,470	1,470,000	56,663.43	312,609.08	12,471.75	1,530.81	220,125.75	56,663.43	163,462.32	5,721.18	169,183.50	196,705.92	365,889.42	4,516,058.21	823.35
1,292	1,292,000	44,687.12	265,464.48	9,503.13	1,166.43	173,600.25	44,687.12	128,913.13	4,511.96	133,425.09	158,062.03	291,487.12	3,515,545.33	838.43
1,114	1,114,000	34,161.00	221,150.92	7,018.99	861.52	132,708.45	34,161.00	98,547.45	3,449.16	101,996.61	123,044.08	225,040.69	2,626,586.02	853.07
933	933,000	25,085.07	178,955.41	4,979.88	611.24	97,450.35	25,085.07	72,365.28	2,532.78	74,898.06	91,930.51	166,828.57	1,860,414.59	866.93
744	744,000	17,483.78	137,878.27	3,353.50	411.62	67,920.90	17,483.78	50,437.12	1,765.30	52,202.42	65,114.53	117,316.95	1,233,731.54	879.98
555	555,000	11,422.30	99,374.63	2,116.78	259.83	44,373.30	11,422.30	32,951.00	1,153.29	34,104.29	43,180.62	77,284.91	756,016.45	892.58
385	385,000	6,900.64	66,604.40	1,235.58	151.66	26,807.55	6,900.64	19,906.91	696.74	20,603.65	26,460.58	47,064.23	418,080.68	904.94
246	246,000	3,763.98	41,118.46	651.16	79.93	14,622.30	3,763.98	10,858.32	380.04	11,238.36	14,632.82	25,871.18	197,951.86	916.44
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

1	40	78,106	765	$ 765,000	$636,341.30	$739,130.43	$636,341.30	$78,106.00	$2,472,054.90	$636,341.30	$1,835,713.60	$64,249.98	$1,899,963.58	$00,000.00	$1,899,963.58
2	41	77,341	774	774,000	630,108.73	722,537.28	608,800.70	74,725.60	2,447,842.65	630,108.73	1,817,733.92	63,620.67	1,881,354.59	39,723.73	1,921,078.32
3	42	76,567	785	785,000	623,802.83	708,025.03	582,326.62	71,476.11	2,423,345.55	623,802.83	1,799,542.72	62,983.97	1,862,526.69	79,871.47	1,942,398.16
4	43	75,782	797	797,000	617,407.32	694,539.45	556,866.03	68,351.01	2,398,500.30	617,407.32	1,781,092.98	62,338.17	1,843,431.15	120,380.40	1,963,811.55
5	44	74,985	812	812,000	610,914.04	683,682.20	532,376.29	65,345.10	2,373,275.25	610,914.04	1,762,361.21	61,682.63	1,824,043.84	161,218.80	1,985,262.64
6	45	74,173	828	828,000	604,298.56	673,578.54	508,803.17	62,451.68	2,347,575.45	604,298.56	1,743,276.89	61,014.70	1,804,291.59	202,283.00	2,006,574.59
7	46	73,345	848	848,000	597,552.72	666,520.34	486,109.52	59,666.21	2,321,369.25	597,552.72	1,723,816.53	60,333.55	1,784,150.08	243,533.11	2,027,683.19
8	47	72,497	870	870,000	590,643.93	660,688.05	464,240.79	56,981.99	2,294,530.05	590,643.93	1,703,886.12	59,635.99	1,763,522.11	284,822.02	2,048,344.13
9	48	71,627	896	896,000	583,555.91	657,422.95	443,159.10	54,394.38	2,266,994.55	583,555.91	1,683,438.64	58,920.31	1,742,358.95	326,064.07	2,068,423.02
10	49	70,731	927	927,000	576,256.07	657,167.74	422,816.93	51,897.52	2,238,636.15	576,256.07	1,662,380.08	58,183.32	1,720,563.40	367,098.87	2,087,662.27
11	50	69,804	962	962,000	568,703.66	658,917.79	403,164.72	49,485.37	2,209,296.60	568,703.66	1,640,592.94	57,420.71	1,698,013.65	407,722.04	2,105,735.69
12	51	68,842	1,001	1,001,000	560,866.10	662,445.09	384,162.83	47,153.03	2,178,849.30	560,866.10	1,617,983.20	56,629.41	1,674,612.61	447,752.80	2,122,365.41
13	52	67,841	1,044	1,044,000	552,710.80	667,537.93	365,774.78	44,896.03	2,147,167.65	552,710.80	1,594,456.85	55,806.04	1,650,262.89	487,000.61	2,137,263.50
14	53	66,797	1,091	1,091,000	544,205.18	673,999.93	347,967.05	42,710.27	2,114,125.05	544,205.18	1,569,919.87	54,947.23	1,624,867.10	525,264.81	2,150,131.91
15	54	65,706	1,143	1,143,000	535,316.64	682,245.98	330,708.87	40,591.97	2,079,594.90	535,316.64	1,544,278.26	54,049.78	1,598,328.04	562,334.43	2,160,662.47
16	55	64,563	1,199	1,199,000	526,004.45	691,470.40	313,967.12	38,537.05	2,043,418.95	526,004.45	1,517,414.50	53,109.51	1,570,524.01	597,952.60	2,168,476.61
17	56	63,364	1,260	1,260,000	516,236.01	702,076.77	297,716.36	36,542.39	2,005,470.60	516,236.01	1,489,234.59	52,123.22	1,541,357.81	631,884.30	2,173,242.11
18	57	62,104	1,325	1,325,000	505,970.60	713,328.51	281,928.73	34,604.58	1,965,591.60	505,970.60	1,459,621.00	51,086.74	1,510,707.74	663,847.77	2,174,555.51
19	58	60,779	1,394	1,394,000	495,175.63	725,097.03	266,583.32	32,721.05	1,923,655.35	495,175.63	1,428,479.72	49,996.77	1,478,476.49	693,582.19	2,172,058.68
20	59	59,385	1,468	1,468,000	483,818.50	737,766.72	251,660.95	30,889.45	1,879,535.25	483,818.50	1,395,716.75	48,850.14	1,444,566.89	720,814.26	2,165,381.15
21	60	57,917	1,546	1,546,000	471,858.49	750,692.61	237,139.98	29,107.12	1,833,073.05	471,858.49	1,361,214.56	47,642.55	1,408,857.11	745,222.59	2,154,079.70
22	61	56,371	1,628	1,628,000	459,262.99	763,777.23	223,004.74	27,372.11	1,784,142.15	459,262.99	1,324,879.16	46,370.81	1,371,249.97	766,505.39	2,137,755.36
23	62	54,743	1,713	1,713,000	445,999.43	776,478.30	209,240.91	25,682.70	1,732,615.95	445,999.43	1,286,616.52	45,031.56	1,331,648.08	784,346.82	2,115,994.90
24	63	53,030	1,800	1,800,000	432,043.36	788,322.84	195,839.05	24,037.73	1,678,399.50	432,043.36	1,246,356.14	43,622.42	1,289,978.56	798,451.64	2,088,430.20
25	64	51,230	1,889	1,889,000	417,378.49	799,324.67	182,793.89	22,436.54	1,621,429.50	417,378.49	1,204,051.01	42,141.78	1,246,192.79	808,546.73	2,054,739.52
26	65	49,341	1,980	1,980,000	401,988.53	809,498.59	170,100.24	20,878.49	1,561,642.65	401,988.53	1,159,654.12	40,587.87	1,200,241.99	814,347.59	2,014,589.58
27	66	47,361	2,070	2,070,000	385,857.17	817,675.35	157,752.95	19,362.97	1,498,975.65	385,857.17	1,113,118.48	38,959.17	1,152,077.65	815,558.21	1,967,635.86
28	67	45,291	2,158	2,158,000	368,992.57	823,610.06	145,756.58	17,890.50	1,433,460.15	368,992.57	1,064,467.58	37,256.39	1,101,723.97	811,975.47	1,913,699.44
29	68	43,133	2,243	2,243,000	351,411.02	827,102.12	134,117.54	16,461.91	1,365,159.45	351,411.02	1,013,748.43	35,481.16	1,049,229.59	803,424.97	1,852,654.56
30	69	40,890	2,321	2,321,000	333,136.96	826,922.19	122,843.64	15,078.11	1,294,168.50	333,136.96	961,031.54	33,636.10	994,667.64	789,762.89	1,784,430.53
31	70	38,569	2,391	2,391,000	314,227.43	823,054.76	111,952.45	13,741.30	1,220,708.85	314,227.43	906,481.42	31,726.85	938,208.27	770,982.94	1,709,191.21
32	71	36,178	2,448	2,448,000	294,747.59	814,179.61	101,461.07	12,453.57	1,145,033.70	294,747.59	850,286.11	29,760.01	880,046.12	747,119.63	1,627,165.75
33	72	33,730	2,487	2,487,000	274,803.37	799,179.32	91,396.77	11,218.25	1,067,554.50	274,803.37	792,751.13	27,746.29	820,497.42	718,390.44	1,538,887.86
34	73	31,243	2,505	2,505,000	254,541.41	777,742.50	81,795.03	10,039.71	988,840.95	254,541.41	734,299.54	25,700.48	760,000.02	685,206.52	1,445,206.54
35	74	28,738	2,501	2,501,000	234,132.80	750,242.14	72,692.63	8,922.47	909,557.70	234,132.80	675,424.90	23,639.87	699,064.77	648,113.76	1,347,178.53
36	75	26,237	2,476	2,476,000	213,756.77	717,625.81	64,122.08	7,870.50	830,401.05	213,756.77	616,644.28	21,582.55	638,226.83	607,729.99	1,245,956.82
37	76	23,761	2,431	2,431,000	193,584.43	680,756.85	56,107.10	6,886.72	752,035.65	193,584.43	558,451.22	19,545.79	577,997.01	564,678.49	1,142,675.50
38	77	21,330	2,369	2,369,000	173,778.71	640,961.23	48,663.53	5,973.07	675,094.50	173,778.71	501,315.79	17,546.05	518,861.84	519,587.11	1,038,448.95
39	78	18,961	2,291	2,291,000	154,478.11	598,896.05	41,795.90	5,130.13	609,115.65	154,478.11	445,637.54	15,597.31	461,234.85	473,017.83	934,252.68
40	79	16,670	2,196	2,196,000	135,812.99	554,649.14	35,503.21	4,357.74	527,605.50	135,812.99	391,792.51	13,712.74	405,505.25	425,531.68	831,036.93
41	80	14,474	2,091	2,091,000	117,921.85	510,269.60	29,783.81	3,655.74	458,102.10	117,921.85	340,180.25	11,906.31	352,086.56	377,757.98	729,844.54
42	81	12,383	1,964	1,964,000	100,886.16	463,070.16	24,619.39	3,021.84	391,921.95	100,886.16	291,035.79	10,186.25	301,222.04	330,117.52	631,339.56
43	82	10,419	1,816	1,816,000	84,885.16	413,695.50	20,014.15	2,456.59	329,761.35	84,885.16	244,876.19	8,570.67	253,446.86	283,474.42	536,921.28
44	83	8,603	1,648	1,648,000	70,089.93	362,728.61	15,966.90	1,959.82	272,284.95	70,089.93	202,195.02	7,076.83	209,271.85	238,706.65	447,978.50
45	84	6,955	1,470	1,470,000	56,663.43	312,609.08	12,471.75	1,530.81	220,125.75	56,663.43	163,462.32	5,721.18	169,183.50	196,705.92	365,889.42
46	85	5,485	1,292	1,292,000	44,687.12	265,464.48	9,503.13	1,166.43	173,600.25	44,687.12	128,913.13	4,511.96	133,425.09	158,062.03	291,487.12
47	86	4,193	1,114	1,114,000	34,161.00	221,150.92	7,018.99	861.52	132,708.45	34,161.00	98,547.45	3,449.16	101,996.61	123,044.08	225,040.69
48	87	3,079	933	933,000	25,085.07	178,955.41	4,979.88	611.24	97,450.35	25,085.07	72,365.28	2,532.78	74,898.06	91,930.51	166,828.57
49	88	2,146	744	744,000	17,483.78	137,878.27	3,353.50	411.62	67,920.90	17,483.78	50,437.12	1,765.30	52,202.42	65,114.53	117,316.95
50	89	1,402	555	555,000	11,422.30	99,374.63	2,116.78	259.83	44,373.30	11,422.30	32,951.00	1,153.29	34,104.29	43,180.62	77,284.91
51	90	847	385	385,000	6,900.64	66,604.40	1,235.58	151.66	26,807.55	6,900.64	19,906.91	696.74	20,603.65	26,460.58	47,064.23
52	91	462	246	246,000	3,763.98	41,118.46	651.16	79.93	14,622.30	3,763.98	10,858.32	380.04	11,238.36	14,632.82	25,871.18
53	92	216	137	137,000	1,759.78	22,124.94	294.14	36.11	6,836.40	1,759.78	5,076.62	177.68	5,254.30	6,928.32	12,182.62
54	93	79	58	58,000	643.62	9,050.00	103.94	12.76	2,500.35	643.62	1,856.73	64.99	1,921.72	2,559.71	4,481.43
55	94	21	18	18,000	171.09	2,713.64	26.70	3.27	664.65	171.09	493.56	17.27	510.83	686.56	1,197.39
56	95	3	3	3,000	24.44	436.97	3.68	.45	94.95	24.44	70.51	2.47	72.98	98.47	171.45
57	96		0												
				$ 78,106,000	$18,248,230.95	$32,026,114.60	$11,101,697.95	$1,362,648.05	$70,890,619.50	$18,248,230.95	$52,642,388.55	$1,842,483.51	$54,484,872.06	$23,621,112.69	

$$\text{Premium} = \frac{\$32,026,114.60 + \$11,101,697.95}{\$1,362,648.05} = \$31.65$$

765	$ 765,000	$636,341.30	$739,130.43	$636,341.30	$78,106.00	$2,472,054.90	$636,341.30	$1,835,713.60	$64,249.98	$1,899,963.58	$00,000.00	$1,899,963.58	$1,134,963.58	$14.68
774	774,000	630,108.73	722,537.28	608,800.70	74,725.60	2,447,842.65	630,108.73	1,817,733.92	63,620.67	1,881,354.59	39,723.73	1,921,078.32	2,282,041.90	29.80
785	785,000	623,802.83	708,025.03	582,326.62	71,476.11	2,423,345.55	623,802.83	1,799,542.72	62,983.97	1,862,526.69	79,871.47	1,942,398.16	3,439,440.06	45.39
797	797,000	617,407.32	694,539.45	556,866.03	68,351.01	2,398,500.30	617,407.32	1,781,092.93	62,338.17	1,843,431.15	120,380.40	1,963,811.55	4,606,251.61	61.43
812	812,000	610,914.04	683,682.20	532,376.29	65,345.10	2,373,275.25	610,914.04	1,762,361.21	61,682.63	1,824,043.84	161,218.80	1,985,262.64	5,779,514.25	77.92
828	828,000	604,298.56	673,578.54	508,803.17	62,451.68	2,347,575.45	604,298.56	1,743,276.89	61,014.70	1,804,291.59	202,283.00	2,006,574.59	6,958,088.84	94.87
848	848,000	597,552.72	666,520.34	486,109.52	59,666.21	2,321,369.25	597,552.72	1,723,816.53	60,333.55	1,784,150.08	243,533.11	2,027,683.19	8,137,772.03	112.25
870	870,000	590,643.93	660,688.05	464,240.79	56,981.99	2,294,530.05	590,643.93	1,703,886.12	59,635.99	1,763,522.11	284,822.02	2,048,344.13	9,316,116.16	130.06
896	896,000	583,555.91	657,422.95	443,159.10	54,394.38	2,266,994.55	583,555.91	1,683,438.64	58,920.31	1,742,358.95	326,064.07	2,068,423.02	10,488,539.18	148.29
927	927,000	576,256.07	657,167.74	422,816.93	51,897.52	2,238,636.15	576,256.07	1,662,380.08	58,183.32	1,720,563.40	367,098.87	2,087,662.27	11,649,201.45	166.89
962	962,000	568,703.66	658,917.79	403,164.72	49,485.37	2,209,296.60	563,703.66	1,640,592.94	57,420.71	1,698,013.65	407,722.04	2,105,735.69	12,792,937.14	185.83
1,001	1,001,000	560,866.10	662,445.09	384,162.83	47,153.03	2,178,849.30	560,866.10	1,617,983.20	56,629.41	1,674,612.61	447,752.80	2,122,365.41	13,914,302.55	205.10
1,044	1,044,000	552,710.80	667,537.93	365,774.78	44,896.03	2,147,167.65	552,710.80	1,594,456.85	55,806.04	1,650,262.89	487,000.61	2,137,263.50	15,007,566.05	224.68
1,091	1,091,000	544,205.18	673,999.93	347,967.05	42,710.27	2,114,125.05	544,205.18	1,569,919.87	54,947.23	1,624,867.10	525,264.81	2,150,131.91	16,066,697.96	244.52
1,143	1,143,000	535,316.64	682,245.98	330,708.87	40,591.97	2,079,594.90	535,316.64	1,544,278.26	54,049.78	1,598,328.04	562,334.43	2,160,662.47	17,084,360.43	264.62
1,199	1,199,000	526,004.45	691,470.40	313,967.12	38,537.05	2,043,418.95	526,004.45	1,517,414.50	53,109.51	1,570,524.01	597,952.60	2,168,476.61	18,053,837.04	284.92
1,260	1,260,000	516,236.01	702,076.77	297,716.36	36,542.39	2,005,470.60	516,236.01	1,489,234.59	52,123.22	1,541,357.81	631,884.30	2,173,242.11	18,967,079.15	305.41
1,325	1,325,000	505,970.60	713,328.51	281,928.73	34,604.58	1,965,591.60	505,970.60	1,459,621.00	51,086.74	1,510,707.74	663,847.77	2,174,555.51	19,816,634.66	326.04
1,394	1,394,000	495,175.63	725,097.03	266,583.32	32,721.05	1,923,655.35	495,175.63	1,428,479.72	49,996.77	1,478,476.49	693,582.19	2,172,058.68	20,594,693.34	346.80
1,468	1,468,000	483,818.50	737,766.72	251,660.95	30,889.45	1,879,535.25	483,818.50	1,395,716.75	48,850.14	1,444,566.89	720,814.26	2,165,381.15	21,292,074.49	367.63
1,546	1,546,000	471,858.49	750,692.61	237,139.98	29,107.12	1,833,073.05	471,858.49	1,361,214.56	47,642.55	1,408,857.11	745,222.59	2,154,079.70	21,900,154.19	388.50
1,628	1,628,000	459,262.99	763,777.23	223,004.74	27,372.11	1,784,142.15	459,262.99	1,324,879.16	46,370.81	1,371,249.97	766,505.39	2,137,755.36	22,409,909.55	409.37
1,713	1,713,000	445,999.43	776,478.30	209,240.91	25,682.70	1,732,615.95	445,999.43	1,286,616.52	45,031.56	1,331,648.08	784,346.82	2,115,994.90	22,812,904.45	430.19
1,800	1,800,000	432,043.36	788,322.84	195,839.95	24,037.73	1,678,399.50	432,043.36	1,246,356.14	43,622.42	1,289,978.56	798,451.64	2,088,430.20	23,101,334.65	450.93
1,889	1,889,000	417,378.49	799,324.67	182,793.89	22,436.54	1,621,429.50	417,378.49	1,204,051.01	42,141.78	1,246,192.79	808,546.73	2,054,739.52	23,267,074.17	471.56
1,980	1,980,000	401,988.53	809,498.59	170,100.24	20,878.49	1,561,642.65	401,988.53	1,159,654.12	40,587.87	1,200,241.99	814,347.59	2,014,589.58	23,301,663.75	492.00
2,070	2,070,000	385,857.17	817,675.35	157,752.95	19,362.97	1,498,975.65	385,857.17	1,113,118.48	38,959.17	1,152,077.65	815,558.21	1,967,635.86	23,199,299.61	512.23
2,158	2,158,000	368,992.57	823,610.06	145,756.58	17,890.50	1,433,460.15	368,992.57	1,064,467.58	37,256.39	1,101,723.97	811,975.47	1,913,699.44	22,954,999.05	532.19
2,243	2,245,000	351,411.02	827,102.12	134,117.54	16,461.91	1,365,159.45	351,411.02	1,013,748.43	35,481.16	1,049,229.59	803,424.97	1,852,654.56	22,564,653.61	551.84
2,321	2,321,000	333,136.96	826,922.19	122,843.64	15,078.11	1,294,168.50	333,136.96	961,031.54	33,636.10	994,667.64	789,762.89	1,784,430.53	22,028,084.14	571.14
2,391	2,391,000	314,227.43	823,054.76	111,952.45	13,741.30	1,220,708.85	314,227.43	906,481.42	31,726.85	938,208.27	770,982.94	1,709,191.21	21,346,275.35	590.04
2,448	2,448,000	294,747.59	814,179.61	101,461.07	12,453.57	1,145,033.70	294,747.59	850,286.11	29,760.01	880,046.12	747,119.63	1,627,165.75	20,525,441.10	608.52
2,487	2,487,000	274,803.37	799,179.32	91,396.77	11,218.25	1,067,554.50	274,803.37	792,751.13	27,746.29	820,497.42	718,390.44	1,538,887.86	19,577,328.96	626.62
2,505	2,505,000	254,541.41	777,742.50	81,795.03	10,039.71	988,840.95	254,541.41	734,299.54	25,700.48	760,000.02	685,206.52	1,445,206.54	18,517,535.50	644.36
2,501	2,501,000	234,132.80	750,242.14	72,692.63	8,922.47	909,557.70	234,132.80	675,424.90	23,639.87	699,064.77	648,113.76	1,347,178.53	17,363,714.03	661.80
2,476	2,476,000	213,756.77	717,625.81	64,122.08	7,870.50	830,401.05	213,756.77	616,644.28	21,582.55	638,226.83	607,729.99	1,245,956.82	16,133,670.85	679.00
2,431	2,431,000	193,584.43	680,756.85	56,107.10	6,886.72	752,035.65	193,584.43	558,451.22	19,545.79	577,997.01	564,678.49	1,142,675.50	14,845,346.35	695.98
2,369	2,369,000	173,778.71	640,961.23	48,663.53	5,973.07	675,094.50	173,778.71	501,315.79	17,546.05	518,861.84	519,587.11	1,038,448.95	13,514,795.30	712.77
2,291	2,291,000	154,478.11	598,896.05	41,795.90	5,130.13	600,115.65	154,478.11	445,637.54	15,597.31	461,234.85	473,017.83	934,252.68	12,158,047.98	729.34
2,196	2,196,000	135,812.99	554,649.14	35,503.21	4,357.74	527,605.50	135,812.99	391,792.51	13,712.74	405,505.25	425,531.68	831,036.93	10,793,084.91	745.69
2,091	2,091,000	117,921.85	510,269.60	29,783.81	3,655.74	458,102.10	117,921.85	340,180.25	11,906.31	352,086.56	377,757.98	729,844.54	9,431,929.45	761.68
1,964	1,964,000	100,886.16	463,070.16	24,619.39	3,021.84	391,921.95	100,886.16	291,035.79	10,186.25	301,222.04	330,117.52	631,339.56	8,099,269.01	777.36
1,816	1,816,000	84,885.16	413,695.50	20,014.15	2,456.59	329,761.35	84,885.16	244,876.19	8,570.67	253,446.86	283,474.42	536,921.28	6,820,190.29	792.77
1,648	1,648,000	70,089.93	362,728.61	15,966.90	1,959.82	272,284.95	70,089.93	202,195.02	7,076.83	209,271.85	238,706.65	447,978.50	5,620,168.79	808.08
1,470	1,470,000	56,668.43	312,609.08	12,471.75	1,530.81	220,125.75	56,668.43	163,462.32	5,721.18	169,183.50	196,705.92	365,889.42	4,516,058.21	823.35
1,292	1,292,000	44,687.12	265,464.48	9,503.13	1,166.43	173,600.25	44,687.12	128,913.13	4,511.96	133,425.09	158,062.03	291,487.12	3,515,545.33	838.43
1,114	1,114,000	34,161.00	221,150.92	7,018.99	861.52	132,708.45	34,161.00	98,547.45	3,449.16	101,996.61	123,044.08	225,040.69	2,626,586.02	853.07
933	933,000	25,085.07	178,955.41	4,979.88	611.24	97,450.35	25,085.07	72,365.28	2,532.78	74,898.06	91,930.51	166,828.57	1,860,414.59	866.93
744	744,000	17,483.78	137,878.27	3,353.50	411.62	67,920.90	17,483.78	50,437.12	1,765.30	52,202.42	65,114.53	117,316.95	1,233,731.54	879.98
555	555,000	11,422.30	99,374.63	2,116.78	259.83	44,373.30	11,422.30	32,951.00	1,153.29	34,104.29	43,180.62	77,284.91	756,016.45	892.58
385	385,000	6,900.64	66,604.40	1,235.58	151.66	26,807.55	6,900.64	19,906.91	696.74	20,603.65	26,460.58	47,064.23	418,080.68	904.94
246	246,000	3,763.98	41,118.46	651.16	79.93	14,622.30	3,763.98	10,858.32	380.04	11,238.36	14,632.82	25,871.18	197,951.86	916.44
137	137,000	1,759.78	22,124.94	294.14	36.11	6,836.40	1,759.78	5,076.62	177.68	5,254.30	6,928.32	12,182.62	73,134.48	925.75
58	58,000	643.62	9,050.00	103.94	12.76	2,900.35	643.62	1,856.73	64.99	1,921.72	2,559.71	4,481.43	19,615.91	934.09
18	18,000	171.09	2,713.64	26.70	3.27	664.65	171.09	493.56	17.27	510.83	686.56	1,197.39	2,813.30	937.77
3	3,000	24.44	436.97	3.68	.45	94.95	24.44	70.51	2.47	72.98	98.47	171.45	—15.25	
0														
	$ 78,106,000	$18,248,230.95	$32,026,114.60	$11,101,697.95	$1,362,648.05	$70,890,619.50	$18,248,230.95	$52,642,388.55	$1,842,483.51	$54,484,872.06	$23,621,112.69			

$11,101,697.95
——————— = $31.65
648.05

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(Testimony of Bruce E. Shepherd.)

(4) We thus see that:

(1) If 78,106 persons aged 40 start out today and each of them pays $31.65 per year until death;

(2) If the 78,106 persons die exactly according to the Mortality Table (so that 765 persons die at the end of the first policy year, and the 77,341 survivors pay $31.65 each at the beginning of the second policy year, and 774 persons die at the end of the second policy year, and the 76,567 survivors pay $31.65 each at the beginning of the third policy year, and so on until all have died);

(3) If the Company pays $1,000 to the beneficiary of each person who dies until the 78,106 persons are all dead;

(4) If the Company invests all the net premium immediately upon their receipt at 3½% per annum—no more and no less—and compounds the interest annually with never any idle funds;

(5) If the Company's Expenses each year are exactly what it has assumed they will be (i. e. $8.15 per year per $1,000 insurance); and

(6) If no policy is lapsed or surrendered—

then it mathematically follows that the Company will be just able to pay its Expenses and all Death

(Testimony of Bruce E. Shepherd.)

Claims at the end of the respective policy years in which they occur—no more and no less.

At the end of the 56 years, the Company will have paid out (1) $18,248,230.95 for Expenses, and (2) $78,106,000 upon the death of 78,106 people at the rate of $1,000 [67] each; and the Company will have received exactly enough to pay out that $18,248,230.95 and $78,106,000, and *will not have a dollar left over.* Its total payments for Expenses and Death Claims will be $96,354,230.95, and it will have received from premiums and interest earnings exactly $96,354,230.95.

In short, the beneficiary of each one of the 78,106 policyholders will have received $1,000 at the end of the policy year in which the policyholder's death occurred, and the Company will have no funds left after the death of the last three survivors between age 95 and 96.*

Method of Calculating the Additional Premium Charged for Disability Benefits.

For all life insurance policies with Death and Disability Benefits, the Company charges an additional premium for the Disability Benefits, and in

*This calculation (shown in Table A p. 79, *supra*) is made in great detail in order to explain various principles involved. In actual practice, however, no Company goes through this long calculation in all its arithmetical detail, but it uses established formulae which produce the same mathematical results. Such formulae enable all companies to make the large number of necessary calculations involved in the millions of Company transactions at great savings in expense.

(Testimony of Bruce E. Shepherd.)

the computation thereof it assumes *four* things, to-wit:

(*a*) That of the very large number of persons fundamentally assumed to be alive at age 40, p. 64, 66, *supra* (say 78,106† persons) only 77,625 are *not* then disabled and are capable of securing Disability Benefits; and that such 77,625 persons will die strictly in accordance with some specified Mortality Table (say Hunter's Combined Table of Mortality and Disability), so many each year, no more and no less, but not the same number each year, and that the deaths will take place at the end of successive years;

(*b*) That the Company will earn some specified rate of Interest (say 3%)‡ on its funds; [68]

(*c*) That the Company's Expenses in connection with its Disability Benefits will be a certain sum (say $.55 per $1,000 insurance) each year;

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†See p. 71 note *supra;* 481 persons (of the 78,106 living persons) became disabled before age 40, and hence cannot obtain Disability Benefits, as they are only issued upon *active* lives.

‡The rate of 3% happens to be used instead of 3½% (as was used in the calculation of premiums and reserves for Death Benefits only) merely because actuarial functions based on the lower rate were more readily accessible at the time the Company first started to grant this kind of Benefit.

(Testimony of Bruce E. Shepherd.)

(*d*) That of the 77,625 persons assumed in (*a*) above, as taking out life insurance policies with both Death and Disability Benefits, a certain number (but not the same number each year) will, in each year, become totally and permanently disabled; and that of such definite number so becoming totally and permanently disabled in any one year, a certain number (no more and no less, but not the same number each year) will, in that year and in every year thereafter, cease to be totally and permanently disabled—all the disabilities occurring, and the respective cessations therefrom, being according to some specified Combined Mortality and Disability Table.

Upon those assumptions (*a*), (*b*), (*c*) and (*d*), and by a mathematical calculation, the Company ascertains the "level" additional premiums for all *Disability Benefits.*

In particular, upon the foregoing assumptions (*a*), (*b*), (*c*) and (*d*), the Oregon Mutual determined a level additional premium* of $2.15, charged

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*In actual practice, the Company (as a time saving device) first calculates the level "net" premium (mathematically outlined hereafter) on assumptions (*a*), (*b*) and (*d*)—*without simultaneously* making the required assumption (*c*) for Expenses; and the Company then *adds* to the mathematical level "net" premium an amount called the "Loading," the amount of which is solely deter-

(Testimony of Bruce E. Shepherd.)

for the Disability Benefits consisting (during continuance of Disability) of (a) Waiver of the entire Premium on a Whole Life Policy at age 40 (of which the Disability Benefit is a part) and (b) an annual income of $100. $27.75 was the annual premium charged on a Whole Life policy at age 40 with Death and Disability Benefits; and of that $27.75 premium, $25.60 is for Death Benefits therein, and $2.15 is the additional premium charged for Disability Benefits, in the following manner: [69]

Tabulation of Disabled Persons and Disability Benefit Claims.

The Company first ascertains from the specified Combined Mortality and Disability Table, [i.e., Hunter's Combined Table of Mortality and Disability (Transactions of the Actuarial Society of America Vol. XII p. 44, 66-67)] that of the 77,625 persons alive, and not disabled, at age 40:

(1) 18,599 persons *die* between ages 40 and 60, *without* becoming disabled;

(2) 56,407 persons *live* until age 60, *without* becoming disabled (after which age, by the express terms of the policies, no new Disability

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mined by the Company's above mentioned assumption (*c*) as to what its future Expenses will be. The sum of the level "net" premium *plus* the Loading constitutes the total "gross" premium which is charged by the Company and is paid by the policyholder; it is usually simply called the Premium.

(Testimony of Bruce E. Shepherd.)

Benefits are granted; and hence such 56,407 persons cease, at age 60, to have any further Disability protection and are disregarded in every computation of the cost of Disability Benefits); and

(3) 2,619 persons *become disabled* between the ages 40 and 60, i.e., 65 persons become disabled during the first year the policies are in force; 68 persons become disabled during the second year, and so on in each year until age 60 is reached.

For these 2,619 persons (who became disabled between the ages 40 and 60) it is impossible, by using the very simple process used in the case of Death Benefits only, p. 71-83, *supra,* for the Company to determine the aggregate amounts the Company will have to pay out, year by year, as Disability Benefits to the 2,619 disabled persons; and this impossibility is because, when a person becomes disabled, the mere occurrence of such disability (unlike in the case of death) does not *ipso facto* fix the total amount which the Company must pay to him in future instalments for Disability Benefits—as such total amount, so to be paid him, will depend upon a still further (very uncertain) contingency, to-wit, *how long* will that disabled person continue to live and be disabled?

From Hunter's Disabled Life Mortality Table the Company next determines (1) the probabilities

(Testimony of Bruce E. Shepherd.)

for each [70] of the 2,619 disabled persons, of living in each successive year following disablement; and (2) the amount of Disability Benefits which the Company must pay each year to each of the 2,619 disabled persons from the respective dates of their several disabilities so long as they continue to be disabled (even though such disability extends *beyond* age 60).

Tabulation of Disablements and Probable Future Cost of Such Disablements—

From Hunter's Disabled Life Mortality Table the Company next determines for each group of persons becoming disabled in each policy year (i.e., 65 in the 1st year, 68 in the 2nd year, 72 in the 3rd year, and so on) the number who will survive to the end of each successive year of disablement. On the assumption that $1 will be paid to each of these surviving disabled persons each year as long as they live, the Company computes the amount of such payments that will have to be made in each year. These amounts are then discounted back to the commencement of disability; and the sum of all such discounted amounts for each group of persons becoming disabled in each policy year (i.e., 65 the 1st year, 68 in the 2nd year, 72 in the 3rd year, etc.) represents the total probable cost of future unaccrued and contingent benefits payable to all those becoming disabled during each policy year and sur-

(Testimony of Bruce E. Shepherd.)

viving to the end thereof—the contingency referred to being the entirely uncertain length of the future life of a totally and permanently disabled person.

These probable costs of future benefits for 20 successive years (i.e., from age 40 to age 60) are then discounted back to the beginning of the first policy year; and the total of these 20 successive discounted costs represents the *present value* of future Disability Benefits to the 77,625 active persons assumed to be living at age 40, on the assumptions (*a*) that deaths and disablements occur according to the Combined Mortality and Dis- [71] ability Table assumed, and (*b*) that interest returns and expense charges will be exactly as contemplated.

A more detailed description of this process is shown in Table C p. 108, *infra,* which is explained in connection with the discussion of Disabled Life Reserves.

Tabulation of Active Survivors and of the Receipts Therefrom—

The Company next tabulates the number of persons who will be alive and active to pay premiums at the beginning of each successive policy year (i.e., 77,625 *minus* all those who have previously died while active, and those who have become disabled). Thus, according to the Combined Mortality and Disability Table the Company will receive premiums from 77,625 persons at the beginning of the 1st

(Testimony of Bruce E. Shepherd.)

policy year, 76,836 at the beginning of the 2nd policy year, 76,037 persons at the beginning of the 3rd policy year, etc. It then assumes (merely for convenience of computation) that each of the 77,625 persons will pay $1.00 at the beginning of the 1st policy year, and that each of the survivors will, at the beginning of the 2nd policy year, pay $1.00, and that at the beginning of each successive policy year thereafter, up to and including the 20th, each active survivor will likewise pay $1.00.

The Company then discounts each of these sums ($77,625.00, $76,836.00, $76,037.00, etc.) at 3% interest compounded annually back to the beginning of the 1st policy year. The aggregate of these sums so discounted is $1,070,647.03, representing the *present value* of all these payments of $1.00 each per year from each of the active surviving persons out of the 77,625 active persons assumed to be alive at the beginning of the 1st policy year.

Under assumption (*c*), p. 83 *supra* the Company assumes that its Expenses each year will be a certain amount (say $0.55 per $1,000 of insurance). The Company then tabulates the amounts which each year the [72] active survivors must pay for the Company's Expenses at this rate; and it similarly discounts those annual payments (aggregating $753,097.75 over 20 years) for Expenses, back to the beginning of the 1st policy year. The aggregate of these sums required for expenses so discounted is $585,236.01.

(Testimony of Bruce E. Shepherd.)

The *present value* of total premiums to be *collected,* must exactly equal the *present value* of (1) all Expenses and (2) all future benefits to be paid. By a simple proportion, in the same manner as in the calculation of the annual premium for Death Benefits only (p. 78-82 *supra*) the Company determines that the annual additional premium for Total and Permanent Disability Benefits is $2.15.

The calculation of the additional premium for Disability Benefits*, (i.e., waiver of future premiums and an income in instalments) is illustrated by Table B on following page (similar to Table A showing the calculation of the level Whole Life premium for Death Benefits only, p. 79 *supra*).

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*This calculation in Table B has been made in great detail in order to explain various principles involved. In actual practice, however, no Company goes through this long calculation in all its arithmetical detail, but it uses established formulae which produce the same mathematical results. Such formulae enable all Companies to make the large number of necessary calculations involved in millions of company transactions at great savings of expense.

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TABLE B

CALCULATION OF PREMIUM AND ACTIVE LIFE RESERVE FOR DISABILITY BENEFITS CONSISTING OF (1) WAIVER OF PREMIUMS $24.36 AND (2) $100 ANNUAL I
(DURING TOTAL AND PERMANENT DISABILITY) ON A WHOLE LIFE POLICY ISSUED AT AGE 40 FOR $1000 FACE AMOUNT

[Hunter's Combined Table of Mortality and Disability, and 3% Interest]

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]
Policy Year	Age at Beginning of Policy Year	Number of Active Survivors at beginning of each policy year at each age from 40 on	Number of Persons out of original group of 77,625 at age 40, active at beginning of each policy year thereafter, who died active during each policy year	Number of Persons becoming disabled and surviving to end of each policy year	Value at end of each year of $1 per year payable during continued life and disability to each person becoming disabled during the year and surviving to the end thereof	Value at end of each year of $1 per year payable during continued life and disability to all those becoming disabled during the year and surviving to the end thereof	Value at end of each year of future contingent and unaccrued disability benefits [$124.36 per year] payable to all those becoming disabled during the year and surviving to the end thereof	Expenses (as assumed)	Discounted Value at 3% of such future contingent and unaccrued disability benefits	Discounted Value at 3% of Amounts paid by active survivors for Expenses	Discounted Value at 3% of $1 paid by active survivors at beginning of each policy year to age 60	Disability Premiums paid by active survivors each year to age 60	Expenses (as assumed)	Net Premiums Paid by active survivors at beginning of each policy year to age 60 [13]—[14]	Interest at 3% on [15] for one year
1	40	77,625	724	65	$8.48396	$551.46	$68,579.24	$42,431.30	$66,581.79	$42,431.30	$77,625.00	$166,893.75	$42,431.30	$124,462.45	$3,733.87
2	41	76,836	731	68	8.42456	572.87	71,242.12	42,000.02	67,152.53	40,776.72	74,598.06	165,197.40	42,000.02	123,197.38	3,695.92
3	42	76,037	740	72	8.35770	601.75	74,834.18	41,563.27	68,483.88	39,177.37	71,672.17	163,479.55	41,563.27	121,916.28	3,657.49
4	43	75,225	749	76	8.29151	630.15	78,366.05	41,119.41	69,627.22	37,630.09	68,841.53	161,733.75	41,119.41	120,614.34	3,618.43
5	44	74,400	762	80	8.21690	657.35	81,748.50	40,668.45	70,516.80	36,133.39	66,103.44	159,960.00	40,668.45	119,291.55	3,578.75
6	45	73,558	774	85	8.14174	692.05	86,063.08	40,208.20	72,076.47	34,683.95	63,451.78	158,149.70	40,208.20	117,941.50	3,538.25
7	46	72,699	791	90	8.06578	725.92	90,275.44	39,738.65	73,402.19	33,280.49	60,884.27	156,302.85	39,738.65	116,564.20	3,496.93
8	47	71,818	810	96	7.98000	766.08	95,269.71	39,257.08	75,206.79	31,919.60	58,394.61	154,408.70	39,257.08	115,151.62	3,454.55
9	48	70,912	832	102	7.89176	804.96	100,104.77	38,761.85	76,721.97	30,598.96	55,978.59	152,460.80	38,761.85	113,698.95	3,410.97
10	49	69,978	859	109	7.80057	850.26	105,738.60	38,251.30	78,679.45	28,316.44	53,632.31	150,452.70	38,251.30	112,201.40	3,366.04
11	50	69,010	890	117	7.70581	901.58	112,120.46	37,722.19	80,998.21	28,068.84	51,349.92	148,371.50	37,722.18	110,649.32	3,319.48
12	51	68,003	924	126	7.60681	958.46	119,193.85	37,171.73	83,600.17	26,853.65	49,126.81	146,206.45	37,171.73	109,034.72	3,271.04
13	52	66,953	961	136	7.51106	1,021.50	127,034.25	36,597.78	86,504.14	25,668.95	46,959.49	143,948.95	36,597.78	107,351.17	3,220.54
14	53	65,856	1,001	147	7.41857	1,090.53	135,618.29	35,998.14	89,659.67	24,512.98	44,844.73	141,590.40	35,998.14	105,592.26	3,167.77
15	54	64,708	1,044	160	7.33755	1,174.01	145,999.63	35,370.62	93,711.61	23,384.15	42,779.61	139,122.20	35,370.62	103,751.58	3,112.55
16	55	63,504	1,092	175	7.26104	1,270.68	158,022.01	34,712.49	98,474.09	22,280.63	40,760.80	136,533.60	34,712.49	101,821.11	3,054.63
17	56	62,237	1,144	193	7.18937	1,387.55	172,555.53	34,019.93	104,398.93	21,200.10	38,784.04	133,809.55	34,019.93	99,789.62	2,993.69
18	57	60,900	1,199	214	7.12297	1,524.32	189,563.90	33,289.10	111,348.81	20,140.45	36,845.50	130,935.00	33,289.10	97,645.90	2,929.38
19	58	59,487	1,256	239	7.06232	1,687.89	209,906.55	32,516.72	119,706.77	19,100.15	34,942.34	127,897.05	32,516.72	95,380.33	2,861.41
20	59	57,992	1,316	269	7.00807	1,885.17	234,439.85	31,699.53	129,803.66	18,077.80	33,072.03	124,682.80	31,699.53	92,983.27	2,789.50
21	60	56,407		0											
			18,599	2,619				$753,097.75	$1,716,655.15	$585,236.01	$1,070,647.03	$2,962,136.70	$753,097.75	$2,209,038.95	$66,271.19

$$\text{Premium} = \frac{\$1,716,655.15 + \$585,236.01}{\$1,070,647.03} = \$2.15$$

1) WAIVER OF PREMIUMS $24.36 AND (2) $100 ANNUAL INCOME
ED AT AGE 40 FOR $1000 FACE AMOUNT

3% Interest]

[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]
Disability Premiums paid by active survivors each year to age 60	Expenses (as assumed)	Net Premiums Paid by active survivors at beginning of each policy year to age 60 [13]—[14]	Interest at 3% on [15] for one year	Interest at 3% on Col. [19] end of preceding policy year	[15]+[16]+[17]	[18]—[8]+[19] end of preceding policy year	[19]÷[3] Active Life Reserve per $1,000 at end of policy year
$166,893.75	$42,431.30	$124,462.45	$3,733.87	$0,000.00	$128,196.32	$59,617.08	$0.78
165,197.40	42,000.02	123,197.38	3,695.92	1,788.51	128,681.81	117,056.77	1.54
163,479.55	41,563.27	121,916.28	3,657.49	3,511.70	129,085.47	171,308.06	2.28
161,733.75	41,119.41	120,614.34	3,618.43	5,139.24	129,372.01	222,314.02	2.99
159,960.00	40,668.45	119,291.55	3,578.75	6,669.42	129,539.72	270,105.44	3.67
158,149.70	40,208.20	117,941.50	3,538.25	8,103.16	129,582.91	313,625.27	4.31
156,302.85	39,738.65	116,564.20	3,496.93	9,408.76	129,469.89	352,819.72	4.91
154,408.70	39,257.08	115,151.62	3,454.55	10,584.59	129,190.76	386,740.77	5.45
152,460.80	38,761.85	113,698.95	3,410.97	11,602.22	128,712.14	415,348.14	5.94
150,452.70	38,251.30	112,201.40	3,366.04	12,460.44	128,027.88	437,637.42	6.34
148,371.50	37,722.18	110,649.32	3,319.48	13,129.12	127,097.92	452,614.88	6.66
146,206.45	37,171.73	109,034.72	3,271.04	13,578.45	125,884.21	459,305.24	6.86
143,948.95	36,597.78	107,351.17	3,220.54	13,779.16	124,350.87	456,621.86	6.93
141,590.40	35,998.14	105,592.26	3,167.77	13,698.66	122,458.69	443,462.26	6.85
139,122.20	35,370.62	103,751.58	3,112.55	13,303.87	120,168.00	417,630.63	6.58
136,533.60	34,712.49	101,821.11	3,054.63	12,528.92	117,404.66	377,013.28	6.06
133,809.55	34,019.93	99,789.62	2,993.69	11,310.40	114,093.71	318,551.46	5.23
130,935.00	33,289.10	97,645.90	2,929.38	9,556.54	110,131.82	239,119.38	4.02
127,897.05	32,516.72	95,380.33	2,861.41	7,173.58	105,415.32	134,628.15	2.32
124,682.80	31,699.53	92,983.27	2,789.50	4,038.84	99,811.61	—.09	$0.00
$2,962,136.70	$753,097.75	$2,209,038.95	$66,271.19	$181,365.58			

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(Testimony of Bruce E. Shepherd.)

These Total and Permanent Disability Benefits have never been issued by the Oregon Mutual except when the terms thereof were contained in the life insurance policy.

After having been issued (as just explained) such Disability Benefits have never been continued in force independently of the Death Benefits in the life insurance policy.

(2) Explanation of Reserves.

Reserves for all Policies of Life Insurance with Death Benefits Only.

On account of the increase in payments for [73] Death Claims due to the advancing age of the policyholders insured, by the very inherent nature of life insurance itself the Company must, from the first moment of the policy's issuance, provide for the creation and inviolable maintenance of a Reserve on life insurance policies with Death Benefits only. This Reserve (with the future premiums to be received and with compound interest earnings thereon at the rate assumed), will be just sufficient (no more and no less) to pay Expenses and to discharge all Death Claims arising under the policies (*a*) if the Expenses are exactly as assumed, and (*b*) if the Death Claims occur precisely as assumed in the Mortality Table upon which the calculation of the premiums is based. The law (as well as the inherent nature of the life insurance premium calculation) requires the Company (from the moment

(Testimony of Bruce E. Shepherd.)

a policy is issued until it terminates) to accumulate out of the earlier premiums and the interest earnings thereon, the Reserve, the amount of which is calculated by pure mathematics to the exact penny, and to maintain it always as an inviolable fund.

The calculation of the Whole Life premium for Death Benefits only (Table A, p. 79, *supra*) shows that the premiums *received* in the first policy year, are *more* than the sums *paid out* in that year for Expenses and Death Claims. To be specific, in the example in that Table, the Company collected the first year $31.65 as the premium from each of the assumed 78,106 persons, an aggregate of $2,472,-054.90; but as only 765 persons died, it paid out but $765,000 in Death Claims and $636,341.30 for Expenses, thus leaving $1,070,713.60 *plus* $64,249.98 (representing interest at 3½%) i.e., a total of $1,-134,963.58 on hand at the end of the first policy year, representing $14.68 for each $1,000 insurance held by the 77,341 survivors at the end of the year.

The $1,134,963.58 is not in any sense a profit to the [74] Company. It simply means that during the 1st year it received $1,134,963.58 *more* than it had to pay out.

The same thing is true for the 2nd policy year, and so on up to, and including the 27th policy year.

In the 27th and subsequent policy years, the situation is *reversed,* and thereafter, in each year, the Company *pays out* in Expenses and Death Claims

(Testimony of Bruce E. Shepherd.)

more than it receives. Thus, at the beginning of the 27th policy year, there will be living 47,361 survivors of the assumed 78,106 entrants; and these survivors will pay as premiums $1,498,975.65; interest earnings will be $854,517.38; the aggregate receipts will be $2,353,493.03. Death Claims will amount to $2,070,000, Expenses will be $385,857.17, and thus the aggregate disbursements will be $2,455,857.17—or $102,364.14 *more* than the Company received in the year.

Similarly, in the 28th policy year $1,433,460.15 will be received as premiums; interest earnings will be $849,231.86; and the aggregate receipts will thus be $2,282,692.01. Death Claims will be $2,158,000.00; Expenses will be $368,992.57; and the aggregate disbursements will thus be $2,526,922.57; and so on, until in the 56th policy year only $94.95 will be received in premiums, and $100.94 in interest; and yet $3,000 will be *paid out* to the beneficiaries of the last three survivors, thus exactly exhausting the fund without a dollar left over.

The payment of the Death Claims is made possible in these *later* policy years, solely by the accumulation during the *early* years of sums *in excess* of what was necessary in those early years for the payment of Death Claims and Expenses. In short, the accumulation, at 3½% compound interest, of the *excess* sums received in the years during which an excess existed, *plus* the net premiums (and interest there-

on) received in later years, is just sufficient to meet Death Claims as they arise, [75] according to the assumptions (*a*), (*b*) and (*c*) outlined on page 73, *supra.*

At any given time, the total amount of such excess funds arising out of the accumulation of the premium and interest is called the "Reserve."

The calculation of the Reserve is a matter of pure mathematics. The amount of the Reserve for any given age, plan and duration may be calculated in advance. It depends upon the particular Mortality Table, and Interest and Expense rates assumed. It is completely defined for a particular type of policy for any given age, plan and duration, when they are stated, and it has no relation whatsoever to the *actual* mortality experience of the Company or to the *actual* rate of interest earned or expenses incurred.

The premium per $1,000 face amount of the policy at the age at which a policy of life insurance is issued, is the amount of money (determined by a purely mathematical calculation upon the foregoing assumptions) which must be collected annually upon each $1,000 face amount of policy issued at that age, and which, with accumulations kept invested at the assumed rate of interest until required, will provide in the aggregate (*a*) for the Expenses as assumed, and (*b*) for the payment of all claims under such polices.

(Testimony of Bruce E. Shepherd.)

The Reserves, therefore, are the mathematically calculated amounts which, with future premiums to be received, and interest at the rate assumed, and *minus* (1) death claims if they occur as provided for in the assumed Mortality Tables, and (2) expenses if they amount to the exact sum assumed in the premium calculation, will be just sufficient, no more and no less, to discharge all claims arising under the policies.* [76]

Reserves for Disability Benefits

On account of the increase in disability claims with the advancing ages of the policyholders insured, by the inherent nature of Disability Benefits the Company must provide for two different kinds of reserves for Disability Benefits, viz.,

(*a*) Reserves with respect to *active* lives
(*b*) Reserves with respect to *disabled* lives

} of those persons who hold policies with Disability Benefits.

The Company must, from the first moment of the policy's issuance, provide for the creation and inviolable maintenance, of a Reserve for Disability

*When one speaks of the Reserve on an individual policy, all that is meant is that it is the *pro rata* part of the aggregate Reserve held for the particular "class" to which such individual policy belongs (see pp. 70-71, 89-94, 107-117). In practice (for Reserve purposes on policies with Death and Disability Benefits) a distinction is made between "active" and "disabled" lives (above).

(Testimony of Bruce E. Shepherd.)

Benefits on active lives. This Reserve, with future additional premiums for the Disability Benefits to be received, and with compound interest earnings thereon at the rate assumed, will be just sufficient* (no more and no less) to pay expenses and to enable the Company to create the necessary *disabled life reserve* for each of those active persons who becomes disabled in each year after the policy is issued.

As each active life becomes disabled it is necessary for the Company, out of the active life reserve previously created, to create and maintain another, and additional, *disabled life reserve* with respect to such disabled persons, which disabled life reserve will be sufficient, together with interest earnings thereon, to enable the Company to pay all Disability Benefits to become due in the future as long as that disabled person remains alive and disabled, provided such disabled lives cease to become disabled precisely as assumed in the calculation of the additional premium charged for Disability Benefits (See assumption (*d*) p. 84, supra).

Active Life Reserves

The calculation of the additional premium charged for Total and Permanent Disability [77] Benefit in

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*Provided, of course, the Expenses, Deaths, and among the active lives the Disablements, are precisely as assumed in the calculation of the additional premium charged for Disability Benefits (See assumptions (*a*), (*b*), (*c*), (*d*) p. 83, 84, *supra*).

(Testimony of Bruce E. Shepherd.)

a Whole Life Policy (Table B p. 91 *supra*) shows that the additional premiums so charged and received in the first policy year are *more* than the (1) sums *paid out* in that year for expenses and (2) *used* in that year to *create* the necessary *Disabled Life* Reserve for each of those active persons who becomes disabled in that year.

To be specific, in the example shown in that Table, in the first year the Company collected $2.15 as the additional premium from each of the 77,625 active persons, an aggregate of $166,893.75; but as only 65 of those persons became disabled, it paid out the assumed $42,431.30 for expenses and had to create a Disabled Life Reserve of only $68,579.24 ($1,055.07 for each person disabled representing the value of future unaccrued and contingent disability payments), thus leaving $55,883.21. Interest earned during the year (at the assumed rate of 3%) amounted to $3,733.87, producing a total on hand at the end of the first policy year of $59,617.08 representing $0.78 for each $1,000 of life insurance held by the 76,836 *active* survivors (724 having died during that year *without* becoming disabled).

The $59,617.08 is not in any sense a profit to the Company from its *Active* Life Disability fund. It simply means that during the first year it received $59,617.08 *more* than it needed to create the necessary Disabled Life Reserve for those persons becoming disabled in that year. The same thing is

true for the second policy year, and so on up to and including the 12th policy year.

In the 13th and subsequent policy years the situation is *reversed;* and thereafter, in each year through the 20th (until the insured reaches age 60, at which time all Disability Benefits terminate), the Company (1) *pays out* in expenses and (2) creates Disabled Life Reserves, *more* than it receives. Thus, at the beginning of the 13th policy year there will be living 66,953 active survivors [78] of the assumed 77,625 active entrants; and these active survivors will pay as additional premiums for Disability Benefits $143,948.95; interest earnings will be $16,999.70; and the aggregate receipts will thus be $160,948.65. Expenses will be $36,597.78; and the amount necessary to create the Disabled Life Reserves for those persons becoming disabled that year, will be $127,034.25; and thus the aggregate charges against the Active Life Reserve fund will be $163,632.03.

The Active Life Reserve fund continues to be depleted in this manner until the 20th policy year, when only $124,682.80 will be received in additional Disability premiums and $6,828.34 will be earned as interest; and yet $234,439.85 will be used to create the Disabled Life Reserves for the 269 persons who become disabled that year, thus exactly exhausting the active life reserve fund without a dollar left over.

The Company is enabled to set aside the necessary Disabled Life Reserves—for those active per-

(Testimony of Bruce E. Shepherd)

sons becoming disabled in these *later* policy years approaching the 20th policy year, (i.e. age 60)—solely by the accumulation during the early years of sums *in excess* of what was necessary in those early years to create the required Disabled Life Reserves and to pay expenses. In short, the accumulation at 3% compound interest of the *excess* sums received in the years during which an excess existed, *plus* net premiums (and interest thereon) received in later years, is just sufficient to meet the demands for Disabled Life Reserves as they arise according to the assumptions (*a*), (*b*), (*c*) and (*d*) outlined on pages 83, 84, *supra*.

At any given time, the total amount of such excess funds arising out of the accumulation of the additional premiums for Disability Benefits and interest is called the "Active Life Reserve." [79]

The calculation of the Active Life Reserve (as in the case of the Reserve for Death Benefits only) is a matter of pure mathematics. The amount of reserve for any given age, plan and duration may be calculated in advance. The amount of reserve depends upon the particular Combined Mortality and Disability Table and Interest and Expense rates assumed. It is completely defined for a particular type of policy and the particular type of Disability Benefit for any given age, plan and duration when they are stated; and it has no relation whatever to the *actual* mortality and disability ex-

(Testimony of Bruce E. Shepherd.)

perience of the Company nor to the actual rate of interest earned or expenses incurred.

Active Life Reserves, therefore, are the mathematically calculated amounts, which, with future additional Disability Premiums to be received and interest at the rate assumed, and *minus* (1) Disabled Life Reserves for the persons becoming disabled if such disablements occur as provided for in the assumed Combined Mortality and Disability Tables and if the amounts of such Disabled Life Reserve are based upon the Disabled Life Mortality Tables assumed, and (2) Expenses if they amount to the exact sum assumed in the premium calculation, will be just sufficient (no more and no less) to meet all future charges against the Active Life Reserve Fund.

Disabled Life Reserves

In order to determine the reserve for a Disability Benefit with respect to a person who has *already become* disabled the Company assumes two things, to-wit:

(*a*) That any very large number of disabled persons (say 411,042*) will cease to become disabled strictly in accordance with some

*411,042 is here chosen (instead of 100,000) merely as a matter of mathematical convenience because 411,042 happens to be the number of persons alive and disabled at age 52 that most simply expresses Hunter's conclusions regarding mortality among disabled.

(Testimony of Bruce E. Shepherd.)

specified mortality table (say Hunter's Disabled Life Mortality Table), so many each year, no more and no less, but not the same number each year, and that the cessations will take place at the end of successive years; [80]

(*b*) That the Company will earn some specified rate of interest (say 3%)† on its funds.

Upon those assumptions and by a purely mathematical calculation, the Company ascertains the Disabled Life Reserves for future unaccrued and contingent Disability Benefits.

All so-called "old-line" life insurance companies (of which Oregon Mutual is one) calculate the Disabled Life Reserves for every age and plan of insurance in accordance with the same basic actuarial principles, which may be illustrated by the following example:

Suppose it is desired to calculate the Disabled Life Reserve for a person *becoming disabled at age 52,* with a Whole Life Policy with Death Benefits and Disability Benefits of the Waiver of Premium of $199.13 and an annual income of $750.00 during the continuance of Disability suffered before attaining age 60.

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†The rate of 3% happens to be used instead of 3½% (as was used in the calculation of premiums and reserves for Death Benefits only) merely because actuarial functions based on the lower rate were more readily accessible at the time the Company first started to grant this kind of Benefit.

(Testimony of Bruce E. Shepherd.)

Upon the foregoing assumptions (*a*) and (*b*), the Oregon Mutual determined this Disabled Life Reserve as follows:

Tabulation of Deaths and Survivors and of Payments for Disability Benefits

From the Mortality Table the Company ascertains how many of the 411,042 disabled persons aged 52 will die during the first year of disablement (i.e. 38,638) leaving 372,404 disabled persons alive at the beginning of the 2nd year of disablement; how many will die during the 2nd year of disablement (i.e. 35,751) leaving 336,653 alive and disabled at the beginning of the 3rd year of disablement, and so on until they are all dead—which according to Hunter's Disabled Life Mortality Table will be at age 96 when the last three survivors of the 411,042 disabled persons will have died. [81]

The Company then tabulates how much money it must pay out each successive year (for convenience at the rate of $1.00 per person) to the 411,042 disabled persons who are alive and disabled at the beginning of each successive year of disablement. It finds that it must pay out $411,042 at the beginning of the first year, $372,404 at the beginning of the 2nd year, and so on until finally it pays $3 to the last three persons who finally die between ages 95 and 96, an aggregate of $3,816,913 paid out over a period of 44 years.

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It then discounts each of these 44 separate sums at 3% compound interest back to the beginning of the first year of disablement.

For example, as it has to pay out $411,042 at the beginning of the first year of disablement no discount applies, and as it has to pay out $372,404 at the beginning of the second year of disablement it discounts that sum back at 3% interest to the beginning of the first year of disablement and finds that it amounts to $361,557.28, which means that if you have $361,557.28 at the beginning of the first year of disablement and invested at 3% it will amount at the beginning of the 2nd year to exactly $372,404.

The Company makes a similar calculation with respect to each of the successive yearly aggregate sums that it must pay out in Disability Benefits. It thus ascertains the 44 separate sums of money that it must have on hand at the beginning of the 1st year of disablement, which if kept invested at 3% per annum compounded annually will be just sufficient to pay the $3,816,913.00 of Disability payments spread through 44 years.

The aggregate of those 44 sums so discounted is $3,126,714.21, which if invested as a whole at the beginning of the 1st year of disablement at 3% compounded annually, will be $3,816,913, to-wit, exactly sufficient to [82] pay $1.00 at the beginning of each year of disablement to each of the 411,042 disabled persons who survive to the beginning of each sub-

sequent year of disablement according to the Disabled Life Mortality Table.

The present value of the $3,816,913 future payments is therefore $3,126,714.21. This amount distributed among each of the 411,042 persons alive and disabled at the beginning of the 1st year of disablement produces a reserve of $7.6068 for each $1.00 of Disability Benefits, or $760.68 per $100 of Disability Benefits.

The reserve fund on hand at the beginning of the first year of disablement after the benefits then due have been paid, amounting to $2,715,672.21 ($3,126,714.21 *minus* $411,042), improves at interest at the assumed rate of 3%, thus earning during the first year interest of $81,470.17. This interest added to the reserve fund on hand at the beginning of the first year of disablement (after benefits then due have been paid, i.e. $2,715,672.21) produces the reserve on hand at the beginning of the second year of disablement (before benefits then due have been paid, i.e., $2,797,142.38) which distributed among each of the 372,404 persons alive and disabled at the beginning of the second year of disablement produces a reserve of $7.5110 per dollar of benefit. The reserves for the third and subsequent years are similarly produced by the accretion of interest earnings and the deduction of benefit payments until at the beginning of the 44th year of disablement (age 96) exactly $3 is paid out to each of the 411,042

(Testimony of Bruce E. Shepherd.)

persons who remains alive and disabled at the beginning of such year (i.e. 3 persons), thus completely exhausting the Disability Life Reserve Fund.

Thus in order to calculate the reserves for a person becoming disabled at age 52 with Disability Benefits of $199.13 waiver of premium and $750 annual income, it is [83] only necessary to multiply the reserves per dollar of benefit by 949.13.

It should be observed (see Table B, page 91 *supra* and Table C, following) that the Disabled Life Reserve, at the beginning of the year, for a benefit of $1.00 a year during the continuance of the disability, is exactly the value employed to determine the probable cost of future disability Benefits used in the computation of the additional premium for Disability Benefits. For example, the value, with respect to a disabled person aged 52, of a dollar a year at the beginning of each year thereafter as long as that person lives and remains disabled, is $7.6068, which is exactly the value used opposite the 12th policy year for the determination of the extra premium for Disability Benefit at age 40. (See Table B, p. 91, *supra*).

TABLE C

Calculation of Disabled Life Reserves for Insured

Becoming Disabled at age 52, on Whole Life Policy with $100 Annual Income Disability Benefits

(Hunter's Disabled Life Table, 3%)

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]*
Year of Disablement	Age at beginning of year of disablement	Number of disabled survivors at beginning of each year of disablement	Number of disabled persons out of Original Group of 411,042 at Age 52 dying each year	Amount of Payments at $1 each to disabled persons surviving at beginning of each year of disablement	Discounted value at 3% interest of $1 each payable to disabled claimants at beginning of each year of disablement	Amount of fund at beginning of year before payments to disabled persons surviving at beginning of each year of disablement	Amount of fund at beginning of year after payment of $1 to each disabled person surviving at beginning of each year of disablement [7]—[5]	Interest at 3% on [8] for one year	Reserve at beginning of year per $100 a year to each disabled survivor 100x [7]÷[3]	Reserve at beginning of year for $949.13 per year to each disabled survivor [10]×9.4913
1	52	411,042	38,638	$411,042.00	$411,042.00	$3,126,714.21	$2,715,672.21	$81,470.17	$760.68	$7,219.84
2	53	372,404	35,751	372,404.00	361,557.28	2,797,142.38	2,424,738.38	72,742.15	751.10	7,128.92
3	54	336,653	33,329	336,653.00	317,327.74	2,497,480.53	2,160,827.53	64,824.83	741.86	7,041.22
4	55	303,324	30,636	303,324.00	277,584.43	2,225,652.36	1,922,328.36	57,669.85	733.75	6,964.24
5	56	272,688	28,087	272,688.00	242,279.76	1,979,998.21	1,707,310.21	51,219.31	726.10	6,891.63
6	57	244,601	25,683	244,601.00	210,994.97	1,758,529.52	1,513,928.52	45,417.86	718.94	6,823.68
7	58	218,918	23,424	218,918.00	183,340.38	1,559,346.38	1,340,428.38	40,212.85	712.30	6,760.65
8	59	195,494	21,309	195,494.00	158,954.51	1,380,641.23	1,185,147.23	35,554.42	706.23	6,703.04
9	60	174,185	19,335	174,185.00	137,503.25	1,220,701.65	1,046,516.65	31,395.50	700.81	6,651.60
10	61	154,850	17,498	154,850.00	118,679.63	1,077,912.15	923,062.15	27,691.86	696.10	6,606.89
11	62	137,352	15,658	137,352.00	102,202.79	950,754.01	813,402.01	24,402.05	692.20	6,569.88
12	63	121,694	13,873	121,694.00	87,914.34	837,804.06	716,110.06	21,483.30	688.45	6,534.29
13	64	107,821	12,399	107,821.00	75,623.48	737,593.36	629,772.36	18,893.16	684.09	6,492.90
14	65	95,422	10,974	95,422.00	64,977.74	648,665.52	553,243.52	16,597.31	679.79	6,452.09
15	66	84,448	9,712	84,448.00	55,830.08	569,840.83	485,392.83	14,561.78	674.78	6,404.54
16	67	74,736	8,594	74,736.00	47,970.19	499,954.61	425,218.61	12,756.56	668.96	6,349.30
17	68	66,142	7,606	66,142.00	41,217.51	437,975.17	371,833.17	11,154.99	662.17	6,284.85
18	69	58,536	6,732	58,536.00	35,415.24	382,988.16	324,452.16	9,733.56	654.28	6,209.97
19	70	51,804	5,957	51,804.00	30,429.39	334,185.72	282,381.72	8,471.45	645.10	6,122.84
20	71	45,847	5,318	45,847.00	26,145.90	290,853.17	245,006.17	7,350.19	634.40	6,021.28
21	72	40,529	4,702	40,529.00	22,439.92	252,356.36	211,827.36	6,354.82	622.66	5,909.85
22	73	35,827	4,156	35,827.00	19,258.78	218,182.18	182,355.18	5,470.66	608.99	5,780.11
23	74	31,671	3,705	31,671.00	16,528.86	187,825.84	156,154.84	4,684.64	593.05	5,628.82
24	75	27,966	3,300	27,966.00	14,170.14	160,839.48	132,873.48	3,986.20	575.13	5,458.73
25	76	24,666	2,935	24,666.00	12,134.04	136,859.68	112,193.68	3,365.81	554.85	5,266.25
26	77	21,731	2,630	21,731.00	10,378.85	115,559.49	93,828.49	2,814.85	531.77	5,047.19
27	78	19,101	2,407	19,101.00	8,857.03	96,643.34	77,542.34	2,326.27	505.96	4,802.22
28	79	16,694	2,220	16,694.00	7,515.46	79,868.61	63,174.61	1,895.24	478.43	4,540.92
29	80	14,474	2,091	14,474.00	6,326.25	65,069.85	50,595.85	1,517.88	449.56	4,266.91
30	81	12,383	1,964	12,383.00	5,254.68	52,113.73	39,730.73	1,191.92	420.85	3,994.41
31	82	10,419	1,816	10,419.00	4,292.49	40,922.65	30,503.65	915.11	392.77	3,727.90
32	83	8,603	1,648	8,603.00	3,441.09	31,418.76	22,815.76	684.47	365.21	3,466.32
33	84	6,955	1,470	6,955.00	2,700.88	23,500.23	16,545.23	496.36	337.89	3,207.02
34	85	5,485	1,292	5,485.00	2,067.99	17,041.59	11,556.59	346.70	310.69	2,948.85
35	86	4,193	1,114	4,193.00	1,534.83	11,903.29	7,710.29	231.31	283.88	2,694.39
36	87	3,079	933	3,079.00	1,094.23	7,941.60	4,862.60	145.87	257.93	2,448.09
37	88	2,146	744	2,146.00	740.44	5,008.47	2,862.47	85.87	233.39	2,215.17
38	89	1,402	555	1,402.00	469.65	2,948.34	1,546.34	46.38	210.30	1,996.02
39	90	847	385	847.00	275.47	1,592.72	745.72	22.36	188.04	1,784.74
40	91	462	246	462.00	145.88	768.08	306.08	9.17	166.25	1,577.93
41	92	216	137	216.00	66.22	315.25	99.25	2.97	145.95	1,385.26
42	93	79	58	79.00	23.51	102.22	23.22	.69	129.39	1,228.08
43	94	21	18	21.00	6.07	23.91	2.91	.09	113.86	1,080.68
44	95	3	3	3.00	.84	3.00	0.00		100.00	949.13

Year of Disablement	Age at beginning of year of disablement	Number of disabled survivors at beginning of each year of disablement	Number of disabled persons out of Original Group of 411,042 at Age 52 dying each year	Amount of Payments at $1 each to disabled persons surviving at beginning of each year of disablement	Discounted value at 3% interest of $1 each payable to disabled claimants at beginning of each year of disablement	Amount of fund at beginning of year before payments to disabled persons surviving at beginning of each year of disablement	Amount of fund at beginning of year after payment of $1 to each disabled person surviving at beginning of each year of disablement [7]—[5]	Interest at 3% on [8] for one year	Reserve at beginning of year per $100 a year to each disabled survivor 100x [7]÷[3]	Reserve at beginning of year for $949.13 per year to each disabled survivor [10]x9.4913
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
1	52	411,042	38,638	$411,042.00	$411,042.00	$3,126,714.21	$2,715,672.21	$81,470.17	$760.68	$7,219.84
2	53	372,404	35,751	372,404.00	361,557.28	2,797,142.38	2,424,738.38	72,742.15	751.10	7,128.92
3	54	336,653	33,329	336,653.00	317,327.74	2,497,480.53	2,160,827.53	64,824.83	741.86	7,041.22
4	55	303,324	30,636	303,324.00	277,584.43	2,225,652.36	1,922,328.36	57,669.85	733.75	6,964.24
5	56	272,688	28,087	272,688.00	242,279.76	1,979,998.21	1,707,310.21	51,219.31	726.10	6,891.63
6	57	244,601	25,683	244,601.00	210,994.97	1,758,529.52	1,513,928.52	45,417.86	718.94	6,823.68
7	58	218,918	23,424	218,918.00	183,340.38	1,559,346.38	1,340,428.38	40,212.85	712.30	6,760.65
8	59	195,494	21,309	195,494.00	158,954.51	1,380,641.23	1,185,147.23	35,554.42	706.23	6,703.04
9	60	174,185	19,335	174,185.00	137,503.25	1,220,701.65	1,046,516.65	31,395.50	700.81	6,651.60
10	61	154,850	17,498	154,850.00	118,679.63	1,077,912.15	923,062.15	27,691.86	696.10	6,606.89
11	62	137,352	15,658	137,352.00	102,202.79	950,754.01	813,402.01	24,402.05	692.20	6,569.88
12	63	121,694	13,873	121,694.00	87,914.34	837,804.06	716,110.06	21,483.30	688.45	6,534.29
13	64	107,821	12,399	107,821.00	75,623.48	737,593.36	629,772.36	18,893.16	684.09	6,492.90
14	65	95,422	10,974	95,422.00	64,977.74	648,665.52	553,243.52	16,597.31	679.79	6,452.09
15	66	84,448	9,712	84,448.00	55,830.08	569,840.83	485,392.83	14,561.78	674.78	6,404.54
16	67	74,736	8,594	74,736.00	47,970.19	499,954.61	425,218.61	12,756.56	668.96	6,349.30
17	68	66,142	7,606	66,142.00	41,217.51	437,975.17	371,833.17	11,154.99	662.17	6,284.85
18	69	58,536	6,732	58,536.00	35,415.24	382,988.16	324,452.16	9,733.56	654.28	6,209.97
19	70	51,804	5,957	51,804.00	30,429.39	334,185.72	282,381.72	8,471.45	645.10	6,122.84
20	71	45,847	5,318	45,847.00	26,145.90	290,853.17	245,006.17	7,350.19	634.40	6,021.28
21	72	40,529	4,702	40,529.00	22,439.92	252,356.36	211,827.36	6,354.82	622.66	5,909.85
22	73	35,827	4,156	35,827.00	19,258.78	218,182.18	182,355.18	5,470.66	608.99	5,780.11
23	74	31,671	3,705	31,671.00	16,528.86	187,825.84	156,154.84	4,684.64	593.05	5,628.82
24	75	27,966	3,300	27,966.00	14,170.14	160,839.48	132,873.48	3,986.20	575.13	5,458.73
25	76	24,666	2,935	24,666.00	12,134.04	136,859.68	112,193.68	3,365.81	554.85	5,266.25
26	77	21,731	2,630	21,731.00	10,378.85	115,559.49	93,828.49	2,814.85	531.77	5,047.19
27	78	19,101	2,407	19,101.00	8,857.03	96,643.34	77,542.34	2,326.27	505.96	4,802.22
28	79	16,694	2,220	16,694.00	7,515.46	79,868.61	63,174.61	1,895.24	478.43	4,540.92
29	80	14,474	2,091	14,474.00	6,326.25	65,069.85	50,595.85	1,517.88	449.56	4,266.91
30	81	12,383	1,964	12,383.00	5,254.68	52,113.73	39,730.73	1,191.92	420.85	3,994.41
31	82	10,419	1,816	10,419.00	4,292.49	40,922.65	30,503.65	915.11	392.77	3,727.90
32	83	8,603	1,648	8,603.00	3,441.09	31,418.76	22,815.76	684.47	365.21	3,466.32
33	84	6,955	1,470	6,955.00	2,700.88	23,500.23	16,545.23	496.36	337.89	3,207.02
34	85	5,485	1,292	5,485.00	2,067.99	17,041.59	11,556.59	346.70	310.69	2,948.85
35	86	4,193	1,114	4,193.00	1,534.83	11,903.29	7,710.29	231.31	283.88	2,694.39
36	87	3,079	933	3,079.00	1,094.23	7,941.60	4,862.30	145.87	257.93	2,448.09
37	88	2,146	744	2,146.00	740.44	5,008.47	2,862.47	85.87	233.39	2,215.17
38	89	1,402	555	1,402.00	469.65	2,948.34	1,546.34	46.38	210.30	1,996.02
39	90	847	385	847.00	275.47	1,592.72	745.72	22.36	188.04	1,784.74
40	91	462	246	462.00	145.88	768.08	306.08	9.17	166.25	1,577.93
41	92	216	137	216.00	66.22	315.25	99.25	2.97	145.95	1,385.26
42	93	79	58	79.00	23.51	102.22	23.22	.69	129.39	1,228.08
43	94	21	18	21.00	6.07	23.91	2.91	.09	113.86	1,080.68
44	95	3	3	3.00	.84	3.00	0.00		100.00	949.13
TOTAL		3,816,913	411,042	$3,816,913.00	$3,126,714.21	$26,823,541.90	$23,006,628.90	$690,198.79		

$$\text{Reserve age 52} = \frac{\$3,126,714.21}{411,042} \times 100 = \$760.68$$

*Column [11] has been inserted as an example to show how the above Table C can be used to compute Reserves on a policy providing for (1) waiver of premium (say $199.13) and (2) annual income of (say) $750.

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(Testimony of Bruce E. Shepherd.)

As a matter of convenience, premiums and reserves for Disability Benefits and Death Benefits may be separately computed (as they are in Tables A and B) even though *both* such Benefits may be provided in *the same policy,* since the policy must show separately the amount of the premium (which ceases to be payable after age 60) for the Disability Benefit.

With respect to every policy providing for *both* Death and Disability Benefits, the Company carries a *total* Reserve, which (with the future *total* premiums to be received and with compound interest to be earned on the *total* fund) will be just sufficient (no more and no less) (1) to pay Expenses and (2) to discharge all Death and Disability claims arising under such policies, (on the assumption that (*a*) Expenses are exactly as assumed and (*b*) Death and Disability claims occur precisely as assumed in the Combined Mortality and Disability Table [84] upon which the calculation of premiums is based). The evolution and ultimate disposition of the *total* Reserve fund is shown in Table D following.

TABLE D

Calculation of Reserve for Whole Life Policy Issued at Age 40 for $1,000 Face Amount of Death Benefits and with Disabil

(Hunter's Combined Table of Death and Disability)

[1] Year	[2] Age	[3] No. Survivors Both Active and Disabled	[4] No. Active Survivors	[5] No. Disabled Survivors	[6] No. dying while active	[7] No. dying while disabled	[8] No. becoming disabled	[9] Probability that a disabled person aged 40 will live to beginning of policy year	[10] No. of 481 persons (already disabled on reaching age 40) who survive while disabled each policy year	[11] [5]—[10]	[12] Death Benefits to those shown in Col. [6]	[13] Death Benefits to those shown in Col. [7]	[14] Premiums paid by Active Survivors $33.80 to age 60; thereafter $31.65	[15] Premiums paid by persons ineligible for disability and waived for those becoming disabled Col. [5] at $31.65	[16] Total Premiums Paid [14]+[15]	[17] Total Expenses (as assumed)	[18] Total Net Premiums Paid
1	40	78,106	77,625	481	724	41	65	1.000000	481	0	$724,000.00	$ 41,000.00	$2,623,725.00	$15,223.65	$2,638,948.65	$678,772.60	$1,960,176.05
2	41	77,341	76,836	505	731	43	68	.915000	440	65	731,000.00	43,000.00	2,597,056.80	15,983.25	2,613,040.05	672,108.75	1,940,931.30
3	42	76,567	76,037	530	740	45	72	.837225	403	127	740,000.00	45,000.00	2,570,050.60	16,774.50	2,586,825.10	665,366.10	1,921,459.00
4	43	75,782	75,225	557	749	48	76	.766061	368	189	749,000.00	48,000.00	2,542,605.00	17,629.05	2,560,234.05	658,526.73	1,901,707.32
5	44	74,985	74,400	585	762	50	80	.700180	337	248	762,000.00	50,000.00	2,514,720.00	18,515.25	2,533,235.25	651,582.49	1,881,652.76
6	45	74,173	73,558	615	774	54	85	.639964	308	307	774,000.00	54,000.00	2,486,260.40	19,464.75	2,505,725.15	644,506.76	1,861,218.39
7	46	73,345	72,699	646	791	57	90	.584287	281	365	791,000.00	57,000.00	2,457,226.20	20,445.90	2,477,672.10	637,201.37	1,840,380.73
8	47	72,497	71,818	679	810	60	96	.532870	256	423	810,000.00	60,000.00	2,427,448.40	21,490.35	2,448,938.75	629,901.01	1,819,037.74
9	48	71,627	70,912	715	832	64	102	.485445	234	481	832,000.00	64,000.00	2,396,825.60	22,629.75	2,419,455.35	622,317.76	1,797,137.59
10	49	70,731	69,978	753	859	68	109	.441755	213	540	859,000.00	68,000.00	2,365,256.40	23,832.45	2,389,088.85	614,507.37	1,774,581.48
11	50	69,804	69,010	794	890	72	117	.401555	194	600	890,000.00	72,000.00	2,332,538.00	25,130.10	2,357,668.10	606,425.84	1,751,242.26
12	51	68,842	68,003	839	924	77	126	.364612	176	663	924,000.00	77,000.00	2,298,501.40	26,554.35	2,325,055.75	598,037.83	1,727,017.92
13	52	67,841	66,953	888	961	83	136	.330338	160	728	961,000.00	83,000.00	2,263,011.40	28,105.20	2,291,116.60	589,308.58	1,701,808.02
14	53	66,797	65,856	941	1,001	90	147	.299286	145	796	1,001,000.00	90,000.00	2,225,932.80	29,783.65	2,255,715.45	580,203.32	1,675,512.13
15	54	65,706	64,708	998	1,044	99	160	.270555	131	867	1,044,000.00	99,000.00	2,187,130.40	31,586.70	2,218,717.10	570,687.26	1,648,029.84
16	55	64,563	63,504	1,059	1,092	107	175	.243770	118	941	1,092,000.00	107,000.00	2,146,435.20	33,517.35	2,179,952.55	560,716.94	1,619,235.61
17	56	63,364	62,237	1,127	1,144	116	193	.219149	106	1,021	1,144,000.00	116,000.00	2,103,610.60	35,669.55	2,139,280.15	550,255.94	1,589,024.21
18	57	62,104	60,900	1,204	1,199	126	214	.196577	95	1,109	1,199,000.00	126,000.00	2,058,420.00	38,106.60	2,096,526.60	539,259.70	1,557,266.90
19	58	60,779	59,487	1,292	1,256	138	239	.175936	85	1,207	1,256,000.00	138,000.00	2,010,660.60	40,891.80	2,051,552.40	527,692.35	1,523,860.05
20	59	59,385	57,992	1,393	1,316	152	269	.157111	76	1,317	1,316,000.00	152,000.00	1,960,129.60	44,088.45	2,004,218.05	515,518.03	1,488,700.02
21	60	57,917	56,407	1,510	1,378	168	..	.139986	68	1,442	1,378,000.00	168,000.00	1,785,281.55	47,791.50	1,833,073.05	471,858.49	1,361,214.56
22	61	56,371	55,029	1,342	1,476	152	..	.125272	60	1,282	1,476,000.00	152,000.00	1,741,667.85	42,474.30	1,784,142.15	459,262.99	1,324,879.16
23	62	54,743	53,553	1,190	1,577	136	..	.111116	53	1,137	1,577,000.00	136,000.00	1,694,952.45	37,663.50	1,732,615.95	445,999.43	1,286,616.52
24	63	53,030	51,976	1,054	1,680	120	..	.098449	47	1,007	1,680,000.00	120,000.00	1,645,040.40	33,359.10	1,678,399.50	432,043.36	1,246,356.14
25	64	51,230	50,296	934	1,782	107	..	.087226	42	892	1,782,000.00	107,000.00	1,591,868.40	29,561.10	1,621,429.50	417,378.49	1,204,051.01
26	65	49,341	48,514	827	1,885	95	..	.077195	37	790	1,885,000.00	95,000.00	1,535,468.10	26,174.55	1,561,642.65	401,988.53	1,159,654.12
27	66	47,361	46,629	732	1,986	84	..	.068317	33	699	1,986,000.00	84,000.00	1,475,807.85	23,167.80	1,498,974.65	385,857.17	1,113,118.48
28	67	45,291	44,643	648	2,083	75	..	.060461	29	619	2,083,000.00	75,000.00	1,412,950.95	20,509.20	1,433,460.15	368,992.57	1,064,467.58
29	68	43,133	42,560	573	2,177	66	..	.053508	26	547	2,177,000.00	66,000.00	1,347,024.00	18,135.45	1,365,159.45	351,411.02	1,013,748.43
30	69	40,890	40,383	507	2,263	58	..	.047354	23	484	2,263,000.00	58,000.00	1,278,121.95	16,046.55	1,294,168.50	333,136.96	961,031.54
31	70	38,569	38,120	449	2,339	52	..	.041909	20	429	2,339,000.00	52,000.00	1,206,498.00	14,210.85	1,220,708.85	314,227.43	906,481.42
32	71	36,178	35,781	397	2,402	46	..	.037089	18	379	2,402,000.00	46,000.00	1,132,468.65	12,565.05	1,145,033.70	294,747.59	850,286.11
33	72	33,730	33,379	351	2,446	41	..	.032787	16	335	2,446,000.00	41,000.00	1,056,445.35	11,109.15	1,067,554.50	274,803.37	792,751.13
34	73	31,243	30,933	310	2,469	36	..	.028984	14	296	2,469,000.00	36,000.00	979,029.45	9,811.50	988,840.95	254,541.41	734,299.54
35	74	28,738	28,464	274	2,469	32	..	.025621	12	262	2,469,000.00	32,000.00	900,885.60	8,672.10	909,557.70	234,132.80	675,424.90
36	75	26,237	25,995	242	2,447	29	..	.022624	11	231	2,447,000.00	29,000.00	822,741.75	7,659.30	830,401.05	213,756.77	616,644.28
37	76	23,761	23,548	213	2,406	25	..	.019954	10	203	2,406,000.00	25,000.00	745,294.20	6,741.45	752,035.65	193,584.43	558,451.22
38	77	21,330	21,142	188	2,346	23	..	.017580	8	180	2,346,000.00	23,000.00	669,144.30	5,950.20	675,094.50	173,778.71	501,315.79
39	78	18,961	18,796	165	2,270	21	..	.015452	7	158	2,270,000.00	21,000.00	594,893.40	5,222.25	600,115.65	154,478.11	445,637.54
40	79	16,670	16,526	144	2,177	19	..	.013505	6	138	2,177,000.00	19,000.00	523,047.90	4,557.60	527,605.50	135,812.99	391,792.51
41	80	14,474	14,349	125	2,073	18	..	.....	6	119	2,073,000.00	18,000.00	454,145.85	3,956.25	458,102.10	117,921.85	340,180.25
42	81	12,383	12,276	107	1,947	17	..	.....	5	102	1,947,000.00	17,000.00	388,535.40	3,386.55	391,921.95	100,886.16	291,035.79
43	82	10,419	10,329	90	1,800	16	..	.....	4	86	1,800,000.00	16,000.00	326,912.85	2,848.50	329,761.35	84,885.16	244,876.19
44	83	8,603	8,529	74	1,634	14	..	.....	3	71	1,634,000.00	14,000.00	269,942.85	2,342.10	272,284.95	70,089.93	202,195.02
45	84	6,955	6,895	60	1,457	13	..	.....	2	58	1,457,000.00	13,000.00	218,226.75	1,899.00	220,125.75	56,663.43	163,462.32
46	85	5,485	5,438	47	1,281	11	..	.....	2	45	1,281,000.00	11,000.00	172,112.70	1,487.55	173,600.25	44,687.12	128,913.13
47	86	4,193	4,157	36	1,104	10	..	.....	2	34	1,104,000.00	10,000.00	131,569.05	1,139.40	132,708.45	34,161.00	98,547.45
48	87	3,079	3,053	26	925	8	..	.....	1	25	925,000.00	8,000.00	96,627.45	822.90	97,450.35	25,085.07	72,365.28
49	88	2,146	2,128	18	738	6	..	.....	1	17	738,000.00	6,000.00	67,351.20	569.70	67,920.90	17,483.78	50,437.12
50	89	1,402	1,390	12	550	5	..	.....	0	12	550,000.00	5,000.00	43,993.50	379.80	44,373.30	11,422.30	32,951.00

TABLE D

MOUNT OF DEATH BENEFITS AND WITH DISABILITY BENEFITS OF (1) WAIVER OF PREMIUMS $24.36 AND (2) $100 ANNUAL INCOME

(Hunter's Combined Table of Death and Disability)

[15] Premiums paid by persons ineligible for disability and waived for those becoming disabled Col. [5] at $31.65	[16] Total Premiums Paid [14]+[15]	[17] Total Expenses (as assumed)	[18] Total Net Premiums Paid	[19] Interest on Total Net Premiums Paid for 1 year	[20] Interest on Fund at end of Previous year	[21] Total Accretions to fund plus fund end of previous year	[22] Total death claims and payment of $124.36 to each eligible disabled person Col. [11] next year	[23] Total of all Reserves at end of year i.e. [21]—[22]	[24] Reserve on policies held by survivors ineligible for disability benefits—at end of year	[25] Reserve per M for policies held by survivors ineligible for disability benefits—at end of year	[26] Total Reserve for Death and Disability benefits on policies held by active survivors	[27] Total Reserve per M for death and disability on policies held by active survivors at end of year	[28] Reserve for death benefits and future disability payments to those eligible persons disabled at end of year	[29] Total Reserve per M for death and disability on policy held by Disabled Life
$15,223.65	$2,638,948.65	$678,772.60	$1,960,176.05	$67,983.85	$00,000.00	$2,028,159.90	$773,083.40	$1,255,076.50	$6,459.20	$14.68	$1,187,167.26	$15.46	$61,450.04	$945.39
15,983.25	2,613,040.05	672,108.75	1,940,931.30	67,316.59	43,327.12	3,306,651.51	789,793.72	2,516,857.79	12,009.40	29.80	2,383,802.37	31.35	121,046.02	953.12
16,774.50	2,586,825.10	665,366.10	1,921,459.00	66,641.46	86,901.01	4,591,859.26	808,504.04	3,783,355.22	16,703.52	45.39	3,585,137.31	47.66	181,514.39	960.39
17,629.05	2,560,234.05	658,526.73	1,901,707.32	65,956.60	130,707.71	5,881,726.85	827,841.28	5,053,885.57	20,701.91	61.43	4,793,069.52	64.42	240,114.14	968.20
18,515.25	2,533,235.25	651,582.49	1,881,652.76	65,261.38	174,634.61	7,175,434.32	850,178.52	6,325,255.80	23,999.36	77.92	6,001,804.44	81.59	299,452.00	975.41
19,464.75	2,505,725.15	644,506.76	1,861,218.39	64,552.95	218,652.08	8,469,679.22	873,391.40	7,596,287.82	26,658.47	94.87	7,210,828.22	99.19	358,801.13	983.02
20,445.90	2,477,672.10	637,291.37	1,840,380.73	63,830.48	262,667.08	9,763,166.11	900,604.28	8,862,561.83	28,736.00	112.25	8,414,653.81	117.17	419,172.02	990.95
21,490.35	2,448,938.75	629,901.01	1,819,037.74	63,090.54	306,557.32	11,051,247.43	929,817.16	10,121,430.27	30,434.04	130.06	9,610,913.59	135.53	480,082.64	998.09
22,629.75	2,419,455.35	622,317.76	1,797,137.59	62,331.28	350,192.00	12,331,091.14	963,154.40	11,367,936.74	31,585.77	148.29	10,793,462.36	154.24	542,888.61	1,005.35
23,832.45	2,389,088.85	614,507.37	1,774,581.48	61,549.36	393,443.67	13,597,511.25	1,001,616.00	12,595,895.25	32,376.66	166.89	11,955,953.26	173.25	607,565.33	1,012.61
25,130.10	2,357,668.10	606,425.84	1,751,242.26	60,740.19	436,074.10	14,843,951.80	1,044,450.68	13,799,501.12	32,706.08	185.83	13,090,691.16	192.50	676,103.88	1,019.76
26,554.35	2,325,055.75	598,037.83	1,727,017.92	59,900.45	477,918.21	16,064,337.70	1,091,534.08	14,972,803.62	32,816.00	205.10	14,192,533.35	211.98	747,454.27	1,026.72
28,105.20	2,291,116.60	589,308.58	1,701,808.02	59,026.58	518,724.01	17,252,362.23	1,142,990.56	16,109,371.67	32,578.60	224.68	15,253,414.31	231.62	823,378.76	1,034.40
29,783.65	2,255,715.45	580,203.32	1,675,512.13	58,115.00	558,299.47	18,401,298.27	1,198,820.12	17,202,478.15	32,032.12	244.52	16,266,396.20	251.38	904,049.83	1,042.73
31,586.70	2,218,717.10	570,687.26	1,648,029.34	57,162.33	596,399.83	19,504,070.15	1,260,022.76	18,244,047.39	31,225.16	264.62	17,222,177.22	271.20	990,645.01	1,052.76
33,517.35	2,179,952.55	560,716.94	1,619,235.61	56,164.14	632,730.65	20,552,177.79	1,325,971.56	19,226,206.23	30,201.52	284.92	18,110,127.37	290.99	1,085,877.34	1,063.54
35,669.55	2,139,280.15	550,255.94	1,589,024.21	55,116.91	667,043.92	21,537,391.27	1,397,915.24	20,139,476.03	29,013.95	305.41	18,918,153.94	310.64	1,192,308.14	1,075.12
38,106.60	2,096,526.60	539,259.70	1,557,266.90	54,016.12	699,012.56	22,449,771.61	1,475,102.52	20,974,669.09	27,713.40	326.04	19,634,352.18	330.06	1,312,603.51	1,087.49
40,891.80	2,051,552.40	527,692.35	1,523,860.05	52,858.18	728,327.97	23,279,715.29	1,557,782.12	21,721,933.17	26,356.80	346.80	20,245,941.15	349.12	1,449,635.22	1,100.71
44,088.45	2,004,218.05	515,518.03	1,488,700.02	51,639.64	754,640.09	24,016,912.92	1,647,327.12	22,369,585.80	24,998.84	367.63	20,737,054.61	367.63	1,607,532.35	1,114.79
47,791.50	1,833,073.95	471,858.49	1,361,214.56	47,642.55	777,544.89	24,555,987.80	1,705,429.52	22,850,358.28	23,310.00	388.50	21,378,835.10	388.50	1,448,413.18	1,129.81
42,474.30	1,784,142.15	459,262.99	1,324,879.16	46,370.81	795,016.08	25,016,824.33	1,769,397.32	23,247,427.01	21,696.61	409.37	21,922,921.78	409.37	1,302,808.62	1,145.83
37,663.50	1,732,615.95	445,999.43	1,286,616.52	45,031.56	809,467.47	25,388,542.56	1,838,230.52	23,550,312.04	20,218.93	430.19	22,359,974.04	430.20	1,170,119.07	1,161.99
33,359.10	1,678,399.50	432,043.36	1,246,356.14	43,622.42	820,559.17	25,660,849.77	1,910,929.12	23,749,920.65	13,939.06	450.93	22,680,827.24	450.95	1,050,154.35	1,177.30
29,561.10	1,621,429.50	417,378.49	1,204,051.01	42,141.78	827,984.47	25,824,097.91	1,987,244.40	23,836,853.51	17,447.72	471.56	22,877,265.13	471.56	942,140.66	1,192.58
26,174.55	1,561,642.65	401,988.53	1,159,654.12	40,587.87	831,435.84	25,868,531.34	2,066,927.64	23,801,603.70	16,236.00	492.00	22,941,817.01	492.01	843,550.69	1,206.80
23,167.80	1,498,974.65	385,857.17	1,113,118.48	38,959.17	830,547.49	25,784,228.84	2,146,978.84	23,637,250.00	14,854.67	512.23	22,867,353.85	512.23	755,041.48	1,219.78
20,509.20	1,433,460.15	368,992.57	1,064,467.58	37,256.39	825,114.60	25,564,088.57	2,226,024.92	23,338,063.65	13,836.94	532.19	22,650,701.73	532.21	673,524.98	1,231.31
18,135.45	1,365,159.45	351,411.02	1,013,748.43	35,481.16	814,897.48	25,202,190.72	2,303,190.24	22,899,000.48	12,692.32	551.84	22,285,595.74	551.86	600,712.42	1,241.14
16,046.55	1,294,168.50	333,136.96	961,031.54	33,636.10	799,771.55	24,693,439.67	2,374,350.44	22,319,089.23	11,422.80	571.14	21,771,837.86	571.14	535,828.57	1,249.02
14,210.85	1,220,708.85	314,227.43	906,481.42	31,726.85	779,707.23	24,037,004.73	2,438,132.44	21,598,872.29	10,620.72	590.04	21,112,749.71	590.05	475,501.86	1,254.62
12,565.05	1,145,033.70	294,747.59	850,286.11	29,760.01	754,675.93	23,233,594.34	2,489,660.60	20,743,933.74	9,736.32	608.52	20,312,598.68	608.54	421,598.74	1,258.50
11,109.15	1,067,554.50	274,803.37	792,751.13	27,746.29	724,922.78	22,289,353.94	2,523,810.56	19,765,543.38	8,772.68	626.62	19,383,930.95	626.62	372,839.75	1,259.59
9,811.50	988,840.95	254,541.41	734,299.54	25,700.48	690,827.83	21,216,370.73	2,537,582.32	18,678,788.41	7,732.32	644.36	18,341,587.29	644.38	329,468.80	1,257.51
8,672.10	909,557.70	234,132.80	675,424.90	23,639.87	652,933.15	20,030,786.33	2,529,727.16	17,501,059.17	7,279.80	661.80	17,204,412.21	661.84	289,367.16	1,252.67
7,659.30	830,401.05	213,756.77	616,644.28	21,582.55	611,824.73	18,751,110.73	2,501,245.08	16,249,865.65	6,790.00	679.00	15,990,409.64	679.06	252,666.01	1,244.66
6,741.45	752,035.65	193,584.43	558,451.22	19,545.79	568,123.36	17,395,986.02	2,453,384.80	14,942,601.22	5,567.84	695.98	14,715,102.77	696.01	221,930.61	1,232.95
5,950.20	675,094.50	173,778.71	501,315.79	17,546.05	522,486.74	15,983,949.80	2,388,648.88	13,595,300.92	4,989.46	712.78	13,397,925.82	712.81	192,385.64	1,217.63
5,222.25	600,115.65	154,478.11	445,637.54	15,597.31	475,410.82	14,531,946.59	2,308,161.68	12,223,784.91	4,376.04	729.34	12,053,816.89	729.39	165,591.98	1,199.94
4,557.60	527,605.50	135,812.99	391,792.51	13,712.74	427,479.97	13,056,770.13	2,210,798.84	10,845,971.29	4,474.14	745.69	10,701,028.77	745.77	140,468.38	1,180.41
3,956.25	458,102.10	117,921.85	340,180.25	11,906.31	379,309.92	11,577,367.77	2,103,684.72	9,473,683.05	3,808.40	761.68	9,351,484.49	761.77	118,390.16	1,160.69
3,386.55	391,921.95	100,886.16	291,035.79	10,186.25	331,338.48	10,106,243.57	1,974,694.96	8,131,548.61	3,109.44	777.36	8,030,274.68	777.45	98,164.49	1,141.45
2,848.50	329,761.35	84,885.16	244,876.19	8,570.67	284,413.77	8,669,409.24	1,824,829.56	6,844,579.68	2,378.31	792.77	6,762,498.09	792.88	79,703.28	1,122.58
2,342.10	272,284.95	70,089.93	202,195.02	7,076.83	239,409.15	7,293,260.68	1,655,212.88	5,638,047.80	1,616.16	808.08	5,572,404.35	808.18	64,027.29	1,103.92
1,899.00	220,125.75	56,663.43	163,462.32	5,721.18	197,220.68	6,004,451.98	1,475,596.20	4,528,855.78	1,646.70	823.35	4,478,367.47	823.53	48,841.61	1,085.37
1,487.55	173,600.25	44,687.12	128,913.13	4,511.96	158,415.76	4,820,696.63	1,296,228.24	3,524,468.39	1,676.86	838.43	3,486,509.85	838.71	36,281.68	1,067.11
1,139.40	132,708.45	34,161.00	98,547.45	3,449.16	123,277.33	3,749,742.33	1,117,109.00	2,632,633.33	853.07	853.07	2,605,543.59	853.44	26,236.67	1,049.47
822.90	97,450.35	25,085.07	72,365.28	2,532.78	92,077.81	2,799,609.20	935,114.12	1,864,495.08	866.93	866.93	1,846,070.44	867.51	17,557.71	1,032.81
569.70	67,920.90	17,483.78	50,437.12	1,765.30	65,199.13	1,981,896.63	745,492.32	1,236,404.31	0.00	879.98	1,224,198.64	880.72	12,205.67	1,017.14
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

1	40	78,106	77,625	481	724	41	65	1.000000	481	0	$724,000.00	$ 41,000.00	$2,623,725.00	$15,223.65	$2,638,948.65	$678,772.60	$1,960,176.05
2	41	77,341	76,836	505	731	43	68	.915000	440	65	731,000.00	43,000.00	597,056.80	15,983.25	2,613,040.05	672,108.75	1,940,931.30
3	42	76,567	76,037	530	740	45	72	.837225	403	127	740,000.00	45,000.00	2,570,050.60	16,774.50	2,586,825.10	665,366.10	1,921,459.00
4	43	75,782	75,225	557	749	48	76	.766061	368	189	749,000.00	48,000.00	2,542,605.00	17,629.05	2,560,234.05	658,526.73	1,901,707.32
5	44	74,985	74,400	585	762	50	80	.700180	337	248	762,000.00	50,000.00	2,514,720.00	18,515.25	2,533,235.25	651,582.49	1,881,652.76
6	45	74,173	73,558	615	774	54	85	.639964	308	307	774,000.00	54,000.00	2,486,260.40	19,464.75	2,505,725.15	644,506.76	1,861,218.39
7	46	73,345	72,699	646	791	57	90	.584287	281	365	791,000.00	57,000.00	2,457,226.20	20,445.90	2,477,672.10	637,291.37	1,840,380.73
8	47	72,497	71,818	679	810	60	96	.532870	256	423	810,000.00	60,000.00	2,427,448.40	21,490.35	2,448,938.75	629,901.01	1,819,037.74
9	48	71,627	70,912	715	832	64	102	.485445	234	481	832,000.00	64,000.00	2,396,825.60	22,629.75	2,419,455.35	622,317.76	1,797,137.59
10	49	70,731	69,978	753	859	68	109	.441755	213	540	859,000.00	68,000.00	2,365,256.40	23,832.45	2,389,088.85	614,507.37	1,774,581.48
11	50	69,804	69,010	794	890	72	117	.401555	194	600	890,000.00	72,000.00	2,332,538.00	25,130.10	2,357,668.10	606,425.84	1,751,242.26
12	51	68,842	68,003	839	924	77	126	.364612	176	663	924,000.00	77,000.00	2,298,501.40	26,554.35	2,325,055.75	598,037.83	1,727,017.92
13	52	67,841	66,953	888	961	83	136	.330338	160	728	961,000.00	83,000.00	2,263,011.40	28,105.20	2,291,116.60	589,308.58	1,701,808.02
14	53	66,797	65,856	941	1,001	90	147	.299286	145	796	1,001,000.00	90,000.00	2,225,932.80	29,783.65	2,255,715.45	580,203.32	1,675,512.13
15	54	65,706	64,708	998	1,044	99	160	.270555	131	867	1,044,000.00	99,000.00	2,187,130.40	31,586.70	2,218,717.10	570,687.26	1,648,029.84
16	55	64,563	63,504	1,059	1,092	107	175	.243770	118	941	1,092,000.00	107,000.00	2,146,435.20	33,517.35	2,179,952.55	560,716.94	1,619,235.61
17	56	63,364	62,237	1,127	1,144	116	193	.219149	106	1,021	1,144,000.00	116,000.00	2,103,610.60	35,669.55	2,139,280.15	550,255.94	1,589,024.21
18	57	62,104	60,900	1,204	1,199	126	214	.196577	95	1,109	1,199,000.00	126,000.00	2,058,420.00	38,106.60	2,096,526.60	539,259.70	1,557,266.90
19	58	60,779	59,487	1,292	1,256	138	239	.175936	85	1,207	1,256,000.00	138,000.00	2,010,660.60	40,891.80	2,051,552.40	527,692.35	1,523,860.05
20	59	59,385	57,992	1,393	1,316	152	269	.157111	76	1,317	1,316,000.00	152,000.00	1,960,129.60	44,088.45	2,004,218.05	515,518.03	1,488,700.02
21	60	57,917	56,407	1,510	1,378	168	..	.139986	68	1,442	1,378,000.00	168,000.00	1,785,281.55	47,791.50	1,833,073.05	471,858.49	1,361,214.56
22	61	56,371	55,029	1,342	1,476	152	..	.125272	60	1,282	1,476,000.00	152,000.00	1,741,667.85	42,474.30	1,784,142.15	459,262.99	1,324,879.16
23	62	54,743	53,553	1,190	1,577	136	..	.111116	53	1,137	1,577,000.00	136,000.00	1,694,952.45	37,663.50	1,732,615.95	445,999.43	1,286,616.52
24	63	53,030	51,976	1,054	1,680	120	..	.098449	47	1,007	1,680,000.00	120,000.00	1,645,040.40	33,359.10	1,678,399.50	432,043.36	1,246,356.14
25	64	51,230	50,296	934	1,782	107	..	.087226	42	892	1,782,000.00	107,000.00	1,591,868.40	29,561.10	1,621,429.50	417,378.49	1,204,051.01
26	65	49,341	48,514	827	1,885	95	..	.077195	37	790	1,885,000.00	95,000.00	1,535,468.10	26,174.55	1,561,642.65	401,988.53	1,159,654.12
27	66	47,361	46,629	732	1,986	84	..	.068317	33	699	1,986,000.00	84,000.00	1,475,807.85	23,167.80	1,498,974.65	385,857.17	1,113,118.48
28	67	45,291	44,643	648	2,083	75	..	.060461	29	619	2,083,000.00	75,000.00	1,412,950.95	20,509.20	1,433,460.15	368,992.57	1,064,467.58
29	68	43,133	42,560	573	2,177	66	..	.053508	26	547	2,177,000.00	66,000.00	1,347,024.00	18,135.45	1,365,159.45	351,411.02	1,013,748.43
30	69	40,890	40,383	507	2,263	58	..	.047354	23	484	2,263,000.00	58,000.00	1,278,121.95	16,046.55	1,294,168.50	333,136.96	961,031.54
31	70	38,569	38,120	449	2,339	52	..	.041909	20	429	2,339,000.00	52,000.00	1,206,498.00	14,210.85	1,220,708.85	314,227.43	906,481.42
32	71	36,178	35,781	397	2,402	46	..	.037089	18	379	2,402,000.00	46,000.00	1,132,468.65	12,565.05	1,145,033.70	294,747.59	850,286.11
33	72	33,730	33,379	351	2,446	41	..	.032787	16	335	2,446,000.00	41,000.00	1,056,445.35	11,109.15	1,067,554.50	274,803.37	792,751.13
34	73	31,243	30,933	310	2,469	36	..	.028984	14	296	2,469,000.00	36,000.00	979,029.45	9,811.50	988,840.95	254,541.41	734,299.54
35	74	28,738	28,464	274	2,469	32	..	.025621	12	262	2,469,000.00	32,000.00	900,885.60	8,672.10	909,557.70	234,132.80	675,424.90
36	75	26,237	25,995	242	2,447	29	..	.022624	11	231	2,447,000.00	29,000.00	822,741.75	7,659.30	830,401.05	213,756.77	616,644.28
37	76	23,761	23,548	213	2,406	25	..	.019954	10	203	2,406,000.00	25,000.00	745,294.20	6,741.45	752,035.65	193,584.43	558,451.22
38	77	21,330	21,142	188	2,346	23	..	.017580	8	180	2,346,000.00	23,000.00	669,144.30	5,950.20	675,094.50	173,778.71	501,315.79
39	78	18,961	18,796	165	2,270	21	..	.015452	7	158	2,270,000.00	21,000.00	594,893.40	5,222.25	600,115.65	154,478.11	445,637.54
40	79	16,670	16,526	144	2,177	19	..	.013505	6	138	2,177,000.00	19,000.00	523,047.90	4,557.60	527,605.50	135,812.99	391,792.51
41	80	14,474	14,349	125	2,073	18	..	.....	6	119	2,073,000.00	18,000.00	454,145.85	3,956.25	458,102.10	117,921.85	340,180.25
42	81	12,383	12,276	107	1,947	17	..	.....	5	102	1,947,000.00	17,000.00	388,535.40	3,386.55	391,921.95	100,886.16	291,035.79
43	82	10,419	10,329	90	1,800	16	..	.....	4	86	1,800,000.00	16,000.00	326,912.85	2,848.50	329,761.35	84,885.16	244,876.19
44	83	8,603	8,529	74	1,634	14	..	.....	3	71	1,634,000.00	14,000.00	269,942.85	2,342.10	272,284.95	70,089.93	202,195.02
45	84	6,955	6,895	60	1,457	13	..	.....	2	58	1,457,000.00	13,000.00	218,226.75	1,899.00	220,125.75	56,663.43	163,462.32
46	85	5,485	5,438	47	1,281	11	..	.....	2	45	1,281,000.00	11,000.00	172,112.70	1,487.55	173,600.25	44,687.12	128,913.13
47	86	4,193	4,157	36	1,104	10	..	.....	2	34	1,104,000.00	10,000.00	131,569.05	1,139.40	132,708.45	34,161.00	98,547.45
48	87	3,079	3,053	26	925	8	..	.....	1	25	925,000.00	8,000.00	96,627.45	822.90	97,450.35	25,085.07	72,365.28
49	88	2,146	2,128	18	738	6	..	.....	1	17	738,000.00	6,000.00	67,351.20	569.70	67,920.90	17,483.78	50,437.12
50	89	1,402	1,390	12	550	5	..	.....	0	12	550,000.00	5,000.00	43,993.50	379.80	44,373.30	11,422.30	32,951.00
51	90	847	840	7	382	3	..	.....	0	7	382,000.00	3,000.00	26,586.00	221.55	26,707.55	6,900.64	19,906.91
52	91	462	458	4	244	2	..	.....	0	4	244,000.00	2,000.00	14,495.70	126.60	14,622.30	3,763.98	10,858.32
53	92	216	214	2	136	1	..	.....	0	2	136,000.00	1,000.00	6,773.10	63.30	6,836.40	1,759.78	5,076.62
54	93	79	78	1	57	1	..	.....	0	1	57,000.00	1,000.00	2,468.70	31.65	2,500.35	643.62	1,856.73
55	94	21	21	0	18	0	..	.....	0	0	18,000.00	0.00	664.65	0.00	664.65	171.09	493.56
56	95	3	3	0	3	0	..	.....	0	0	3,000.00	0.00	94.95	0.00	94.95	24.44	70.51
		Totals			75,006	3,100	2,619	.....			$75,006,000.00	$3,100,000.00	$72,926,677.20	$926,079.00			$54,851,454.50

$2,638,948.65	$678,772.60	$1,960,176.05	$67,983.85	$00,000.00	$2,028,159.90	$773,083.40	$1,255,076.50	$6,459.20	$14.68	$1,187,167.26	$15.46	$61,450.04	$945.39
2,613,040.05	672,108.75	1,940,931.30	67,316.59	43,327.12	3,306,651.51	789,793.72	2,516,857.79	12,009.40	29.80	2,383,802.37	31.35	121,046.02	953.12
2,586,825.10	665,366.10	1,921,459.00	66,641.46	86,901.01	4,591,859.26	808,504.04	3,783,355.22	16,703.52	45.39	3,585,137.31	47.66	181,514.39	960.39
2,560,234.05	658,526.73	1,901,707.32	65,956.60	130,707.71	5,881,726.85	827,841.28	5,053,885.57	20,701.91	61.43	4,793,069.52	64.42	240,114.14	968.20
2,533,235.25	651,582.49	1,881,652.76	65,261.38	174,634.61	7,175,434.32	850,178.52	6,325,255.80	23,999.36	77.92	6,001,804.44	81.59	299,452.00	975.41
2,505,725.15	644,506.76	1,861,218.39	64,552.95	218,652.08	8,469,679.22	873,391.40	7,596,287.82	26,658.47	94.87	7,210,828.22	99.19	358,801.13	983.02
2,477,672.10	637,291.37	1,840,380.73	63,830.48	262,667.08	9,763,166.11	900,604.28	8,862,561.83	28,736.00	112.25	8,414,653.81	117.17	419,172.02	990.95
2,448,938.75	629,901.01	1,819,037.74	63,090.54	306,557.32	11,051,247.43	929,817.16	10,121,430.27	30,434.04	130.06	9,610,913.59	135.53	480,082.64	998.09
2,419,455.35	622,317.76	1,797,137.59	62,331.28	350,192.00	12,331,091.14	963,154.40	11,367,936.74	31,585.77	148.29	10,793,462.36	154.24	542,888.61	1,005.35
2,389,088.85	614,507.37	1,774,581.48	61,549.36	393,443.67	13,597,511.25	1,001,616.00	12,595,895.25	32,376.66	166.89	11,955,953.26	173.25	607,565.33	1,012.61
2,357,668.10	606,425.84	1,751,242.26	60,740.19	436,074.10	14,843,951.80	1,044,450.68	13,799,501.12	32,706.08	185.83	13,090,691.16	192.50	676,103.88	1,019.76
2,325,055.75	598,037.83	1,727,017.92	59,900.45	477,918.21	16,064,337.70	1,091,534.08	14,972,803.62	32,816.00	205.10	14,192,533.35	211.98	747,454.27	1,026.72
2,291,116.60	589,308.58	1,701,808.02	59,026.58	518,724.01	17,252,362.23	1,142,990.56	16,109,371.67	32,578.60	224.68	15,253,414.31	231.62	823,378.76	1,034.40
2,255,715.45	580,203.32	1,675,512.13	58,115.00	558,299.47	18,401,298.27	1,198,820.12	17,202,478.15	32,032.12	244.52	16,266,396.20	251.38	904,049.83	1,042.73
2,218,717.10	570,687.26	1,648,029.84	57,162.33	596,399.83	19,504,070.15	1,260,022.76	18,244,047.39	31,225.16	264.62	17,222,177.22	271.20	990,645.01	1,052.76
2,179,952.55	560,716.94	1,619,235.61	56,164.14	632,730.65	20,552,177.79	1,325,971.56	19,226,206.23	30,201.52	284.92	18,110,127.37	290.99	1,085,877.34	1,063.54
2,139,280.15	550,255.94	1,589,024.21	55,116.91	667,043.92	21,537,391.27	1,397,915.24	20,139,476.03	29,013.95	305.41	18,918,153.94	310.64	1,192,308.14	1,075.12
2,096,526.60	539,259.70	1,557,266.90	54,016.12	699,012.56	22,449,771.61	1,475,102.52	20,974,669.09	27,713.40	326.04	19,634,352.18	330.06	1,312,603.51	1,087.49
2,051,552.40	527,692.35	1,523,860.05	52,858.18	728,327.97	23,279,715.29	1,557,782.12	21,721,933.17	26,356.80	346.80	20,245,941.15	349.12	1,449,635.22	1,100.71
2,004,218.05	515,518.03	1,488,700.02	51,639.64	754,640.09	24,016,912.92	1,647,327.12	22,369,585.80	24,998.84	367.63	20,737,054.61	367.63	1,607,532.35	1,114.79
1,833,073.05	471,858.49	1,361,214.56	47,642.55	777,544.89	24,555,987.80	1,705,429.52	22,850,558.28	23,310.00	388.50	21,378,835.10	388.50	1,448,413.18	1,129.81
1,784,142.15	459,262.99	1,324,879.16	46,370.81	795,016.08	25,016,824.33	1,769,397.32	23,247,427.01	21,696.61	409.37	21,922,921.78	409.37	1,302,808.62	1,145.83
1,732,615.95	445,999.43	1,286,616.52	45,031.56	809,467.47	25,388,542.56	1,838,230.52	23,550,312.04	20,218.93	430.19	22,359,974.04	430.20	1,170,119.07	1,161.99
1,678,399.50	432,043.36	1,246,356.14	43,622.42	820,559.17	25,660,849.77	1,910,929.12	23,749,920.65	18,939.06	450.93	22,680,827.24	450.95	1,050,154.35	1,177.30
1,621,429.50	417,378.49	1,204,051.01	42,141.78	827,984.47	25,824,097.91	1,987,244.40	23,836,853.51	17,447.72	471.56	22,877,265.13	471.56	942,140.66	1,192.58
1,561,642.65	401,988.53	1,159,654.12	40,587.87	831,435.84	25,868,531.34	2,066,927.64	23,801,603.70	16,236.00	492.00	22,941,817.01	492.01	843,550.69	1,206.80
1,498,974.65	385,857.17	1,113,118.48	38,959.17	830,547.49	25,784,228.84	2,146,978.84	23,637,250.00	14,854.67	512.23	22,867,353.85	512.23	755,041.48	1,219.78
1,433,460.15	368,992.57	1,064,467.58	37,256.39	825,114.60	25,564,088.57	2,226,024.92	23,338,063.65	13,836.94	532.19	22,650,701.73	532.21	673,524.98	1,231.31
1,365,159.45	351,411.02	1,013,748.43	35,481.16	814,897.48	25,202,190.72	2,303,190.24	22,899,000.48	12,692.32	551.84	22,285,595.74	551.86	600,712.42	1,241,14
1,294,168.50	333,136.96	961,031.54	33,636.10	799,771.55	24,693,439.67	2,374,350.44	22,319,089.23	11,422.80	571.14	21,771,837.86	571.14	535,828.57	1,249.02
1,220,708.85	314,227.43	906,481.42	31,726.85	779,707.23	24,037,004.73	2,438,132.44	21,598,872.29	10,620.72	590.04	21,112,749.71	590.05	475,501.86	1,254.62
1,145,033.70	294,747.59	850,286.11	29,760.01	754,675.93	23,233,594.34	2,489,660.60	20,743,933.74	9,736.32	608.52	20,312,598.68	608.54	421,598.74	1,258.50
1,067,554.50	274,803.37	792,751.13	27,746.29	724,922.78	22,289,353.94	2,523,810.56	19,765,543.38	8,772.68	626.62	19,383,930.95	626.62	372,839.75	1,259.59
988,840.95	254,541.41	734,299.54	25,700.48	690,827.33	21,216,370.73	2,537,582.32	18,678,788.41	7,732.32	644.36	18,341,587.29	644.38	329,468.80	1,257.51
909,557.70	234,132.80	675,424.90	23,639.87	652,933.15	20,030,786.38	2,529,727.16	17,501,059.17	7,279.80	661.80	17,204,412.21	661.84	289,367.16	1,252.67
830,401.05	213,756.77	616,644.28	21,582.55	611,824.73	18,751,110.73	2,501,245.03	16,249,865.65	6,790.00	679.00	15,990,409.64	679.06	252,666.01	1,244.66
752,035.65	193,584.43	558,451.22	19,545.79	568,123.36	17,395,986.02	2,453,384.80	14,942,601.22	5,567.84	695.98	14,715,102.77	696.01	221,930.61	1,232.95
675,094.50	173,778.71	501,315.79	17,546.05	522,486.74	15,983,949.80	2,388,648.88	13,595,300.92	4,989.46	712.78	13,397,925.82	712.81	192,385.64	1,217.63
600,115.65	154,478.11	445,637.54	15,597.31	475,410.82	14,531,946.59	2,308,161.68	12,223,784.91	4,376.04	729.34	12,053,816.89	729.39	165,591.98	1,199.94
527,605.50	135,812.99	391,792.51	13,712.74	427,479.97	13,056,770.13	2,210,798.84	10,845,971.29	4,474.14	745.69	10,701,028.77	745.77	140,468.38	1,180.41
458,102.10	117,921.85	340,180.25	11,906.31	379,309.92	11,577,367.77	2,103,684.72	9,473,683.05	3,808.40	761.68	9,351,484.49	761.77	118,390.16	1,160.69
391,921.95	100,886.16	291,035.79	10,186.25	331,338.48	10,106,243.57	1,974,694.96	8,131,548.61	3,109.44	777.36	8,030,274.68	777.45	98,164.49	1,141.45
329,761.35	84,885.16	244,876.19	8,570.67	284,413.77	8,669,409.24	1,824,829.56	6,844,579.68	2,378.31	792.77	6,762,498.09	792.88	79,703.28	1,122.58
272,284.95	70,089.93	202,195.02	7,076.83	239,409.15	7,293,260.68	1,655,212.88	5,638,047.80	1,616.16	808.08	5,572,404.35	808.18	64,027.29	1,103.92
220,125.75	56,663.43	163,462.32	5,721.18	197,220.68	6,004,451.98	1,475,596.20	4,528,855.78	1,646.70	823.35	4,478,367.47	823.53	48,841.61	1,085.37
173,600.25	44,687.12	128,913.13	4,511.96	158,415.76	4,820,696.63	1,296,228.24	3,524,468.39	1,676.86	838.43	3,486,509.85	838.71	36,281.68	1,067.11
132,708.45	34,161.00	98,547.45	3,449.16	123,277.33	3,749,742.33	1,117,109.00	2,632,633.33	853.07	853.07	2,605,543.59	853.44	26,236.67	1,049.47
97,450.35	25,085.07	72,365.28	2,532.78	92,077.81	2,799,609.20	935,114.12	1,864,495.08	866.93	866.93	1,846,070.44	867.51	17,557.71	1,032.81
67,920.90	17,483.78	50,437.12	1,765.30	65,199.13	1,981,896.63	745,492.32	1,236,404.31	0.00	879.98	1,224,198.64	880.72	12,205.67	1,017.14
44,373.30	11,422.30	32,951.00	1,153.29	43,230.00	1,313,738.60	555,870.52	757,868.08	0.00	892.58	750,853.63	893.87	7,014.45	1,002.06
26,707.55	6,900.64	19,906.91	696.74	26,483.57	804,955.30	385,497.44	419,457.86	0.00	904.94	415,508.56	907.22	3,949.30	987.33
14,622.30	3,763.98	10,858.32	380.04	14,692.71	445,338.93	246,248.72	199,090.21	0.00	916.44	197,143.06	921.23	1,947.15	973.58
6,836.40	1,759.78	5,076.62	177.68	6,931.75	211,276.26	137,124.36	74,151.90	0.00	925.75	73,189.60	938.33	962.30	962.30
2,500.35	643.62	1,856.73	64.99	2,560.81	78,634.43	58,000.00	20,634.43	0.00	934.09	20,634.43	982.59		
664.65	171.09	493.56	17.27	686.56	21,831.82	18,000.00	3,831.82	0.00	937.77	3,831.82	1,277.27		
94.95	24.44	70.51	2.47	98.47	4,003.27	3,000.00	1,003.27	0.00	1,000.00	1,003.27			
		$54,851,454.50	$1,908,727.70	$24,342,280.39		$81,101,459.32							

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Thus, for example,* Table D shows that of the 78,106 persons assumed to be alive at age 40, 77,625 will be granted the *combined* benefits (481 persons assumed to be already disabled at age 40 being ineligible for Disability Benefits). The Company will receive in the first year *total* premiums of $2,638,-948.65 (Col. [16]) and interest of $67,983.85 (Col. [19] from which it will pay *total* Expenses of $678,772.60 (Col. [17]), Death Benefits of $765,000 [1,000 x (Col. [6] + Col. [7])], Disability Benefits of $8,080.34 ($124.36 x 65), *total* Benefits $773,-083.40 (Col. [22]). The *total* income over total *outgo* (i.e., the *total reserve*) at the end of the first policy year is, therefore, $1,255,076.50 which is just sufficient to provide (1) a reserve for Death Benefits for those 440 surviving persons (*ineligible* for Disability Benefits) of $6,459.20 (Col. [24]), (2) a Combined Death Benefit and Active Life Disability Reserve for those 76,836 *active* survivors of $1,187,-167.26 (Col. [26]), and (3) a Combined Death Benefit and Disabled Life Disability Reserve for those 65 *disabled* survivors (*eligible* for Disability Benefits) of $61,450.04 (Col. [28]). Similar results are produced in subsequent policy years; at all times the total Reserve fund is just sufficient to provide the

*Oregon Mutual has not actually issued a policy with precisely the amounts of Benefits assumed in this calculation. This is postulated, however, in order to show more clearly the relation between Tables A, B and C.

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required combined reserves for Death and Disability Benefits in respect to those persons holding such benefits and to provide the Death Benefit reserve only for those surviving persons ineligible for the Disability Benefits.

It should be observed (1) that the Reserve per $1,000 in Col. [25] of Table D is the same‡ as that in Col. [18] [86] of Table A; and (2) that the Reserve per $1,000 in Col. [27] of Table D is the same‡ as the sum of the reserves per $1,000 in Col. [18] of Table A and Col. [20] of Table B.

The true nature of a Life Insurance Company's Surplus and Reserve—

"Reserve" and "Surplus" are words which have a special meaning with reference to a life insurance company—a meaning very different from that which they have in the case of an ordinary trading corporation.

An explanation will be useful.

In an ordinary corporation, the *excess* of assets over its capital stock and debts constitutes the Surplus; and when a part of the Surplus is set apart to meet liability, or any future or possible liability, such part is often colloquially called a "reserve," as "*reserve* for depreciation," "*reserve* for taxes,"

‡Slight differences are due to the use of a limited number of decimal places.

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"*reserve* for bad or doubtful debts," "*reserve* for possible loss on stock, bonds, on mortgages," etc.; but those "reserves" are not the technical "reserve funds required by law" referred to in Sec. 203 (a)(2) of the Revenue Acts of 1932, 1934 and 1936.

In a life insurance company, on the contrary, the excess of assets over debts is *not* Surplus. The *debts* are relatively insignificant, being confined to unpaid death claims, expenses, etc. On the other hand, most of its *liabilities* (policies payable at death, etc.) are contingent upon events in the distant future. As previously shown, *the amount it must have on hand* [in order to be sure that (with the addition of future premiums and interest) it will always have funds enough to meet its liabilities as they mature according to the assumed Expenses, and assumed Mortality and Disability Tables] *is called the Reserve,* and it is computed at various amounts according to the particular Mortality and Disability Tables and Interest rate assumed.

From time to time (by common usage and statute fixed as December 31, of each year) an insurance company [87] will take a "sounding" of its position; that is to say, it will calculate its Reserve on the basis of certain Mortality and Disability Tables and Interest rate, so as to compare the Reserve with the total assets. The *excess* of the assets over the Reserve and other liabilities is the Surplus *on the basis of the particular Mortality and Dis-*

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ability Tables and Interest rate assumed. In other words, Surplus in life insurance is the amount of assets over and above (1) the sum (i.e. Reserve) required to fulfill the company's policies on the basis of the particular Mortality and Disability Tables and Interest rate assumed in the calculation, and (2) the sum required to meet other liabilities (which are generally very small in comparison with the Reserve).

What, then, is the *true* Surplus? It cannot be said that any *one* surplus is more *truly* the "Sur*plus*" than another.

Whether a life insurance company has *no* Surplus, a *small* Surplus, or a *considerable* Surplus, will oftentimes depend upon *what* Mortality and Disability Tables and Interest rate *are assumed.* The same company, may on the basis of one Table and rate of Interest, have not enough assets to equal its Reserve; on another Table and Interest rate it may have no surplus or only a very small surplus; by still another Table and rate of Interest it may have a considerable surplus.

The various States have, in the interest of the protection of policyholders, established certain standards by which they require that the Reserves of insurance companies shall be calculated upon certain Mortality and Disability Tables and with a certain maximum Interest rate, resulting in minimum reserve requirements. These requirements en-

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able policyholders and governmental authorities to know whether a company is so conducted that it will have sufficient funds to meet the claims under [88] all of its policies as these policies respectively mature by death or otherwise.

The calculation of the Reserve is for the purpose of ascertaining the Company's general financial condition. Calculated on one Table with one rate of Interest, the Reserve may be larger and the Surplus smaller than calculated upon another Table and another rate of Interest. Neither can be said to be *more* correct or *more* truthful than the other. *Both are correct; both are true;* one may be more conservative and financially sounder than the other, but that is all.

"Reserve" and "Surplus" are merely convenient terms used in connection with assumed Mortality and Disability Tables and Interest rate to indicate a company's financial condition. You cannot form any opinion as to a company's financial soundness by being told it has such-and-such "Surplus" or such and such "Reserve," *unless you also know the Mortality and Disability Tables and Interest rate used.* The maintenance of the Reserve is required by every state in the Union.

By the very nature of life insurance itself, all policies fall automatically and inherently into a fundamental classification—a classification that is absolutely fundamental in life insurance. This

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classification is used by every life insurance company in this country in the computation of its Reserve.

In particular, for the purpose of computing the Reserve, in accordance with the inherent and fundamental classification just mentioned, all policies of a life insurance company are classified into a large number of "classes."

A "class" of policies consists of *all* those policies, *and only those,* which are,

(1) Issued under the same conditions,

(2) Issued at the same age,

(3) Issued upon the same plan of insurance with identic terms and provisions, [89]

(4) Issued at the same time (in practice usually during the calendar year),

(5) Issued at the same annual premium per $1,000 of face amount.

II. Evolution of Life Insurance Policy Forms

The provisions of the modern insurance policy are the result of over a hundred years of evolutionary process, and can best be understood by a brief summary of that development.

Early Form.

Originally, life insurance policies were a mere promise to pay a lump sum at death, provided the annual premiums were duly paid; with rigid restrictions as to residence, travel, and occupation; and a *complete forfeiture* in event of any default in

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payment of premium, suicide, duelling, military service, or violation of any restrictive provision.

Beginning about 1860 (progressively extended by statute and contract), "non-forfeiture" benefits were first introduced, so that in the event of a failure to pay a premium, the policyholder (instead of having to forfeit the results of many years' payments) was given various optional benefits, such as paid-up insurance in a reduced amount, extended insurance of the face amount for a limited time and guaranteed cash values.

Liberalizing Provisions.

Incontestable clauses were introduced; restrictions as to occupation, residence, travel, military service, etc., were removed or greatly modified; a copy of the application was attached to and made a part of the policy, and the statements therein were made representations and not warranties.

"Endowment" policies became frequent, in which the face of the policy was paid *before* Death.

About 1906 "Standard provisions" began to be required by law to cover many of the foregoing subjects, as well as reinstatements, misstatement as to age, etc., [90] and gradually life insurance policies began to contain (either required or authorized by statute or by State Insurance Departments) a great many new Benefits, such as,

(1) Instead of paying the face of the policy in *one lump sum,* payment (at the insured's op-

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tion) would be made in annual installments for many years.

(2) Policies could be changed into different forms.

(3) Very liberal "extended insurance" benefits.

(4) Insurance on "loans" so that if Death occurred before a loan was repaid, the full face of the policy would still be paid.

Modern Extensions of Life Insurance to Cover Disability.

About 30 years ago some policies began to provide that in the event of total and permanent disability, a part of the insurance should be paid immediately (as the policyholder might possibly be unable to pay his premiums) and the balance paid at death.

Total and Permanent Disability Benefits.

(*a*) About 1910, the companies began to insert clauses that if the insured became "totally and permanently" disabled, the company would waive the payment of premiums so long as such disability continued. Some companies made no specific *charge* in their premium for such a clause. Others made a trifling increase, say twenty-five cents (per $1,000 face amount) for that additional feature.

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(*b*) A little later, the "Disability" benefit was expanded so as to provide not only for (1) such waiver of premiums, but also for (2) the payment of the face of policy in ten (or more) *annual* installments—a sort of acceleration or precipitation of payment of the policy—the amounts so paid to correspondingly *reduce* the final amount of the policy payable at death, thus extinguishing the entire policy in (say) ten years, even *without* Death. For thus anticipating such payments of the insurance before death, some companies slightly *increased* their premiums. [91]

(*c*) The next step—a very important one—was to make such *annual* payments, but *without reducing* the amount of insurance payable at death; and for that privilege the companies also *increased the premium* to a considerable extent.

(*d*) Later a further liberalization followed by which (instead of *annual* payments), the company paid a *monthly* income—generally 1% of the face of the policy—thus giving the totally and permanently disabled policyholder and his family a monthly income to live on, instead of compelling him to wait till the end of the year; and *for* this liberalization in benefits, the companies also *increased* the premium.

(*e*) The next step in the evolutionary process was this: instead of requiring the policy-

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holder to *prove* that his disability was both total *and* would continue for life, certain circumstances were specified, in which event the existing total disability would be presumed to be permanent; and *for* this liberalization in benefits the companies also *increased the premium* to an even greater extent.

Form of Total and Permanent Disability Benefits

(*f*) These Total and Permanent Disability Benefits have never been issued except when the terms thereof were contained in the life insurance policy. After having been issued (as just explained) such Disability Benefits have not been continued in force independently of the Death Benefits in the life insurance policy.

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III. The American Experience Table of Mortality is as follows:

AEMRICAN EXPERIENCE TABLE OF MORTALITY
With Death Rate per 1,000

Age	Number Living	Deaths Each Year	Death-Rate per 1,000	Age	Number Living	Deaths Each Year	Death-Rate per 1,000
10	100,000	749	7.49				
11	99,251	746	7.52	56	63,364	1,260	19.88
12	98,505	743	7.54	57	62,104	1,325	21.33
13	97,762	740	7.57	58	60,779	1,394	22.94
14	97,022	737	7.60	59	59,385	1,468	24.72
15	96,285	735	7.63	60	57,917	1,546	26.69
16	95,550	732	7.66	61	56,371	1,628	28.88
17	94,818	729	7.69	62	54,743	1,713	31.29
18	94,089	727	7.73	63	53,030	1,800	33.94
19	93,362	725	7.76	64	51,230	1,889	36.87
20	92,637	723	7.80	65	49,341	1,980	40.13
21	91,914	722	7.85	66	47,361	2,070	43.71
22	91,192	721	7.91	67	45,291	2,158	47.65
23	90,471	720	7.96	68	43,133	2,243	52.00
24	89,751	719	8.01	69	40,890	2,321	56.76
25	89,032	718	8.06	70	38,569	2,391	61.99
26	88,314	718	8.13	71	36,178	2,448	67.66
27	87,596	718	8.20	72	33,730	2,487	73.73
28	86,878	718	8.26	73	31,243	2,505	80.18
29	86,160	719	8.34	74	28,738	2,501	87.03
30	85,441	720	8.43	75	26,237	2,476	94.37
31	84,721	721	8.51	76	23,761	2,431	102.31
32	84,000	723	8.61	77	21,330	2,369	111.06
33	83,277	726	8.72	78	18,961	2,291	120.83
34	82,551	729	8.83	79	16,670	2,196	131.73
35	81,822	732	8.95	80	14,474	2,091	144.47

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Age	Number Living	Deaths Each Year	Death-Rate per 1,000	Age	Number Living	Deaths Each Year	Death-Rate per 1,000
36	81,090	737	9.09	81	12,383	1,964	158.60
37	80,353	742	9.23	82	10,419	1,816	174.30
38	79,611	749	9.41	83	8,603	1,648	191.56
39	78,862	756	9.59	84	6,955	1,470	211.36
40	78,106	765	9.79	85	5,485	1,292	235.55
41	77,341	774	10.01	86	4,193	1,114	265.68
42	76,567	785	10.25	87	3,079	933	303.02
43	75,782	797	10.52	88	2,146	744	346.69
44	74,985	812	10.83	89	1,402	555	395.86
45	74,173	828	11.16	90	847	385	454.54
46	73,345	848	11.56	91	462	246	532.47
47	72,497	870	12.00	92	216	137	634.26
48	71,627	896	12.51	93	79	58	734.18
49	70,731	927	13.11	94	21	18	857.14
50	69,804	962	13.78	95	3	3	1,000.00
51	68,842	1,001	14.54				
52	67,841	1,044	15.39				
53	66,797	1,091	16.33				
54	65,706	1,143	17.40				
55	64,563	1,199	18.57				

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IV. Hunter's Combined Table of Mortality and Disability is as follows:

TABLE IV.

COMBINED TABLE OF MORTALITY AND DISABILITY ON ASSUMPTION THAT NONE BECOME DISABLED AFTER ATTAINING AGE 60

Age x	Rate of Mortality (Amer. Experience Table) q_x	Probability of becoming Disabled r_x	Ultimate Rate of Mortality among Disabled q'_x	Probability of Dying in Active State q^{aa}_x	Of 96285 Actives at age 15 there will be living at age x Active l^{aa}_x	Disabled l^{ii}_x	Number becoming Disabled in course of the year $l^{aa}_x r_x$
15	.007634	.000509	.267	.007634	96285	0	49
16	.007661	.000510	.254	.007539	95501	49	49
17	.007688	.000511	.241	.007474	94732	86	48
18	.007727	.000512	.229	.007459	93976	113	48
19	.007765	.000513	.217	.007466	93227	135	48
20	.007805	.000515	.205	.007472	92483	154	48
21	.007855	.000517	.193	.007510	91744	170	47
22	.007906	.000519	.182	.007560	91008	184	47
23	.007958	.000521	.171	.007599	90273	198	47
24	.008011	.000524	.161	.007650	89540	211	47
25	.008065	.000528	.151	.007702	88808	224	47
26	.008130	.000533	.141	.007777	88077	237	47
27	.008197	.000539	.132	.007842	87345	251	47
28	.008264	.000556	.123	.007909	86613	265	47
29	.008345	.000553	.114	.007999	85881	279	47
30	.008427	.000561	.106	.008092	85147	294	48
31	.008510	.000571	.100	.008174	84410	311	48
32	.008607	.000584	.095	.008270	83672	328	49
33	.008718	.000600	.092	.008368	82931	346	50
34	.008831	.000619	.090	.008468	82187	364	51
35	.008946	.000642	.089	.008571	81440	382	52
36	.009089	.000670	.088	.008700	80690	400	54
37	.009234	.000703	.088	.008820	79934	419	56
38	.009408	.000741	.087	.008980	79173	438	59
39	.009586	.000784	.086	.009145	78403	459	61

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Age x	Rate of Mortality (Amer. Experience Table)	Probability of becoming Disabled	Ultimate Rate of Mortality among Disabled	Probability of Dying in Active State	Of 96285 Actives at age 15 there will be living at age x		Number becoming Disabled in course of the year
					Active	Disabled	
	q_x	r_x	q'_x	q^{aa}_x	l^{aa}_x	l^{ii}_x	$l^{aa}_x r_x$
40	.009794	.000832	.085	.009327	77625	481	65
41	.010008	.000885	.085	.009514	76836	505	68
42	.010252	.000943	.085	.009732	76037	530	72
43	.010517	.001006	.086	.009957	75225	557	76
44	.010829	.001075	.086	.010242	74400	585	80
45	.011163	.001151	.087	.010522	73558	615	85
46	.011562	.001236	.088	.010880	72699	646	90
47	.012000	.001331	.088	.011279	71818	679	96
48	.012509	.001438	.089	.011733	70912	715	102
49	.013106	.001559	.090	.012275	69978	753	109
50	.013781	.001696	.091	.012897	69010	794	117
51	.014541	.001851	.092	.013588	68003	839	126
52	.015389	.002027	.094	.014353	66953	888	136
53	.016333	.002230	.096	.015200	65856	941	147
54	.017396	.002468	.099	.016134	64708	998	160
55	.018571	.002752	.101	.017196	63504	1059	175
56	.019885	.003095	.103	.018381	62237	1127	193
57	.021335	.003512	.105	.019688	60900	1204	214
58	.022936	.004021	.107	.021114	59487	1292	239
59	.024720	.004643	.109	.022693	57992	1393	269
60	.026693	.....	.111	.024430	56407	1510	0
61	.028880	.....	.113	.026822	55029	1342	0
62	.031292	.....	.114	.029447	53553	1190	0
63	.033943	.....	.114	.032323	51976	1054	0
							[94]
64	.036873	.....	.115	.035430	50296	934	0
65	.040129	.....	.115	.038855	48514	827	0
66	.043707	.....	.115	.042592	46629	732	0
67	.047647	.....	.115	.046659	44643	648	0
68	.052002	.....	.115	.051151	42560	573	0
69	.056762	.....	.115	.056038	40383	507	0
70	.061993	.....	.115	.061359	38120	449	0
71	.067665	.....	.116	.067131	35781	397	0
72	.073733	.....	.116	.073280	33379	351	0

(Testimony of Bruce E. Shepherd.)

Age x	Rate of Mortality (Amer. Experience Table)	Probability of becoming Disabled	Ultimate Rate of Mortality among Disabled	Probability of Dying in Active State	Of 96285 Actives at age 15 there will be living at age x		Number becoming Disabled in course of the year
					Active	Disabled	
	q_x	r_x	q_x^i	q_x^{aa}	l_x^{aa}	l_x^{ii}	$l_x^{aa} r_x$
73	.080178	.....	.116	.079818	30933	310	0
74	.087028	.....	.117	.086741	28464	274	0
75	.094371	.....	.118	.094133	25995	242	0
76	.102311	.....	.119	.102174	23548	213	0
77	.111064	.....	.121	.110964	21142	188	0
78	.120827	.....	.126	.120770	18796	165	0
79	.131734	.....	.133	.131732	16526	144	0
80		American Mortality			14349	125	0

Mr. Pigg: I think the Mortality and Disability Tables contained therein are recognized by insurance actuaries as authoritative tables, and that he would testify that the calculations set out therein were made by him and that in his opinion they are accurate calculations.

Mr. Bullitt: That is all right.

The Member: That is all right. I think that will be in much better shape. Shall we call the witness so he can be cross-examined?

Mr. Bullitt: The Insurance Commissioner is here. May we have him testify and then you may continue with the cross-examination and Mr. Shepherd.

Mr. Pigg: If it is very important to the witness, I will not deny it. The respondent concedes, your Honor.

(Testimony of Bruce E. Shepherd.)

The Member: Very well, call him.

[Printer's Note: The testimony of Mr. Hugh H. Earle is set forth at page 138 of this printed record.]

[95]

Cross Examination
of Mr. Bruce E. Shepherd

I am employed by The Association of Life Insurance Presidents. I prepared the tables and other statements in the documents which I had in my possession on direct examination during the past weeks because our association volunteered to furnish gratis whatever help it could to the Oregon Mutual Life Insurance Company in this particular case. This is a matter that is of common interest to members of our association.

The witness was shown the Commissioner's Exhibit marked A for identification and stated that only a part of Item 8 on the said exhibit is in controversy, namely, the extra reserve for total and permanent disability benefits, $110,314.43. There is another reserve that is still in controversy in this proceeding, namely, Item 10—present value of the amounts incurred but not yet due for total and permanent disability benefits, $121,107.04. The same identical character or nature of reserves is shown on the Commissioner's Exhibits marked "B" for identification—Item 8 being in the amount of $153,-253.31 and Item 10 in the amount of $158,359.97.

Question: Now, Mr. Shepherd, in connection

(Testimony of Bruce E. Shepherd.)

with the reserve which appears under Item 8, to-wit: "Extra Reserve for total and permanent disability benefits," will you explain to the Court the method of calculating the various factors that are taken into account in arriving at the premiums charged to a policyholder, or collected from a policyholder?

A. First, of course, just to cover that part of my testimony that was stipulated, first, I will go over the method of computing the premiums for disability benefits.

Q. That is as far as this question goes.

A. We assume—when I say "we," I mean the actuarial profession, [96] assume that a very large number of lives will be insured for both death and total and permanent disability benefits. We do that because in order to have the law of averages get full play, we must have a large number. We also assume that the death rates, the rates of disability and the rates of death among disabled lives will follow some table of experience. For example, Hunter's Combined Mortality and Disability Table. Then, we have short-cut formulae that we use that are so technical that I would hesitate to attempt to explain them in detail here; but they produce the net premium based on that experience, based on the assumption that we will earn interest at some specified rate on our funds and on the assumption that we will have to pay expenses of certain amounts,

(Testimony of Bruce E. Shepherd.)

usually estimated per thousand of insurance benefits.

Q. Without going into these formulae, can you state precisely the various factors entering into that in order to determine, or make the computation?

A. They are short-cut formulae, or merely a short-cut and nothing more, to show exactly the same results that are set forth in detail in the calculation which was brought out in my direct testimony. Now, I would like, if I may, to explain some of them. I shall be glad to do so. I do not want to burden the record with this, but the point I am getting at is—to fix the amount of premiums chargeable or necessary to charge in order to meet the future or contingent liability, we take into account all the future claims, as they will occur on the assumption that deaths and disablements follow exactly these assumed disabilities, and on the assumption that they will earn interest at this rate that we have assumed, and on the further assumption that we have to pay out, year by year, certain [97] expenses. Then we discount back to the beginning of the first policy year, all these payments for claims that we will have to meet at the time we have to meet them. That total discounted value represents the total present value of all future benefits.

Now, that present value has to be met by the payment of future premiums which also has a present value that is computable along the same actuarial

(Testimony of Bruce E. Shepherd.)

lines. We compute that value for the sake of convenience, which represents the present value of one dollar payable annually by all those persons in all successive years that will be alive to pay premiums and by means of that present value, by a simple process of division, we are able to get at the actual amount of premiums that will have to be paid and, consequently, equals the present value of those benefits.

Q. All right. Now, can you testify that this is the procedure and method and factor, and so forth, that was employed by this petitioner in computing the premiums that it collected?

A. Yes that is so.

Q. Now, still referring to the same item, Mr. Shepherd, this extra reserve for total and permanent disability benefits, explain to the Board as simply as you can the method you used and the factors entering into the computations of this particular reserve?

A. We use the same basic assumptions for the computation of reserves that we use for the computation of premiums; that is, the reserve grows right out of the premiums. It is a natural consequence of the premium itself. The fact is that the premium collected for the entire contract during the year is always more than the company needs in that year to pay the claims and expenses that fall due in that year. There is also an [98] excess left over, and that excess represents the reserve which

(Testimony of Bruce E. Shepherd.)

will be enough, and just enough, on the assumption that the experience will follow that assumed, to liquidate all future claims and expenses as they occur in the future, together with all premium payments that are to be collected in the future.

Q. Now, is that reserve set up during the life of the policy before the disability has occurred?

A.. This reserve that you are referring to in Item No. 8 is that type of reserve.

Q. Then it is your testimony that that particular one is a reserve set up at the end of each year during the so called life of the policy before the policy has become a claim? A. That is right.

Q. Before impairment of health, or accident has occurred?

A. That reserve—that is sufficient to take care of the additional disabled life reserve which the company has to set up at the time the life becomes disabled, but until that time we carry only the active life disability reserve.

The element of interest is very definitely a factor in computing the amount of this particular reserve. The reserve is set up out of premiums collected.

With reference to Item 10 in Exhibit B, the active life reserve fund grows out of the collection of the disability premiums that are necessary to cover the disability benefits. The accretions to that fund arise only from premium collections and from in-

(Testimony of Bruce E. Shepherd.)

terest earned on the funds. That fund itself is not used to pay any losses, the only drain on that [99] fund is such drain that occurs by reason of the fact that some of the active lives become disabled, and it is, therefore, necessary to take cognizance of the fact that one of the contingencies upon which this whole premium reserve collection is based has occurred. Thereafter, you have only to consider the future contingencies that probably effect the life of the disabled person. In order to keep a line on that, we keep distinct and separate and maintain these two separate funds, one the active life reserve fund and one the other the disabled life reserve fund. The disabled life reserve fund is created out of the drain upon the active reserve fund, and those are the only drains upon that fund.

There are no duplications between the two funds.

Q. (By Mr. Pigg) Now, about the disabled reserve fund, that is not set up until after the policy has become a claim, is it?

A. No, I can't answer that question, because it is not properly put, I don't think.

Q. Well, I think you have already answered it, Mr. Shepherd. It is set up to meet the liability on the policies which have become claims after the impairment of health or accident has occurred?

A. Yes, to meet claims in the sense that the insured person has become disabled; but the amount due that disabled person depends upon his living

(Testimony of Bruce E. Shepherd.)

while disabled for years and years in the future. It is a contingent claim, a contingent liability.

Q. After the policy has become a claim; that is, after the impairment of the policy, or the accident has occurred and payments are made by the company pursuant to the terms of the policy, those payments are charged against what account, for instance? [100]

A. Only the disabled life reserve account.

Q. This particular Item 10?

A. Yes, they are charged against the fund represented by that liability.

Q. And this particular reserve Item 10 is set up to provide for actual incurred liabilities, isn't it?

A. No, sir.

Q. Why not?

A. Because liabilities are not incurred.

Q. But the accident has occurred and——

A. (Interrupting) The disablement has occurred, but the claims, according to the terms of the contract, the company has a liability to make the actual payment——

Q. (Interrupting) I will not go into that, Mr. Shepherd, but what I am interested in bringing out on the record is how far is this reserve set up to provide for liability on policies that have—that is, the policyholder has suffered impairment of health or accident?

A. Yes,—I don't understand your question.

(Testimony of Bruce E. Shepherd.)

Mr. Pigg: Will you read the question, Mr. Reporter?

(Whereupon the reporter read the question as recorded.)

Q. Mr. Pigg: I will withdraw the question and reframe it. I did change it a little bit in the middle, but I thought it was clear myself. That particular reserve item 10 as set up on your book in respect to those policies which become claims; that is, in respect to those policies the holders of which have suffered impairment of health or an accident. [101]

A. If that is your definition of what becomes a claim, then I will say yes.

Q. Under such policies as the petitioner in this case issues, any policy that became a claim, so far as accident or health benefits are concerned until the holder of the policy has suffered an impairment of health or accident——.

A. There never was any disability claim made against this company until the policyholder was either disabled or he thought he was disabled.

Q. Is it your thought that the minute that a person procures a policy from this petitioner, a life insurance policy containing these disabled benefit clauses, that he then and there has a claim against the company? A. Of course he doesn't.

Q. Isn't there quite a distinction between that situation and the policy where an impairment of health or accident has occurred?

(Testimony of Bruce E. Shepherd.)

A. That is in that case he has not progressed any distance toward the claim, and in the other case he has gone part way but has not completed——

Q. Suppose, in the first instance, the case in which we will assume a person who has just acquired a policy, and on the other hand one who has held a policy until he was 59 years and 364 days old without having suffered an accident or any serious health impairment. What would be the condition?

A. The difference between what—I am not sure that I know what you mean.

Q. What would be the difference between the policies, so far as their claims against the company is concerned?

A. I am sorry, but I do not know which policies you are talking about. Are you talking about the policy that is just issued or a policy [102] that has run for many years?

Q. First, I am talking about a policy in which impairment of health or accident had occurred.

A. Yes.

Q. (continuing) And compare that then with a policy in which the insured had just acquired his policy, and you stated what you thought was your thought on that subject. I then asked you a question assuming that relation to the policy in which the impairment of health or accident had occurred, assuming a policy which had been held by a policyholder from age 30 until he was 59 years, 364 days

(Testimony of Bruce E. Shepherd.)

of age. What would be the difference in the rights of one as between those two policyholders? Would there be any difference in their rights in connection with them?

A. Yes, both would have a contingent right. One of them would have two contingencies ahead of him before he could make a claim against the company, and the other one would have but one.

Q. But a policyholder doesn't have to die to have a claim against the company?

A. Are you speaking of life insurance?

Q. No, I am speaking of one of them having an accident and disability clause.

A. He doesn't get a claim; that is, he is through.

Q. He does not have to die to have a claim against the company, does he, by reason of health or accident?

A. On the contrary, he has to live in order to make a claim against the company. [103]

Q. In computing this reserve Item 10, is it assumed that there will be no recovery?

A. For a part of the reserve we use an assumption which comes closer to reflecting what you speak about as actual experience than a table that shows that there were some recoveries going to take place. In other words, there are certain types of benefits where there is a waiting period before the payments begin. If there is a long waiting period, a disability that actually occurs is, for all practical purposes,

(Testimony of Bruce E. Shepherd.)

total and permanent disability, and in that case, there is no such thing as any recovery among disabled lives. It does not matter, as a matter of fact, whether you assume there are to be recoveries, or whether you assume there are to be deaths among disabled lives. Anything that removes a person from the disabled life class, whether it be death or recovery from disablement, produces exactly the same picture, so far as the company is concerned.

Q. All right, now, if I understand your answer, Mr. Shepherd, it amounts to, in substance, that in computing this reserve you simply do not assume that there will be a recovery, or recoveries?

A. Recoveries are so infrequent that it is not worth while to make that assumption.

Q. In other words, the element is not taken into account? A. That is right.

Q. Now, when disability occurs under these policies, isn't it a fact that under the same provisions of the policies the payment of premiums by the policyholders is waived, isn't that right?

A. That is right.

Q. And, therefore, there is no further premium from which this reserve may be computed? [104]

A. Which reserve do you mean? Do you mean the disabled life reserve?

Q. Yes, the disabled life reserve.

A. That is correct. There are no further premiums to be collected which add to the disabled life reserves for this particular man.

(Testimony of Bruce E. Shepherd.)

Q. Yes. In other words, this disabled life reserve Item 10 is taken out of the active life reserve, and if the amount taken out of that reserve is not sufficient to meet the claims or to meet the payments that the company has in its surplus or its earnings or profits, isn't that right?

A. If the claims that the company has to meet or has paid on disabled lives are in excess of what they have remaining from the premiums, as contemplated in the reserve computation, the company will suffer a loss in the disabled life reserve fund.

Q. And it has to make that deficiency up out of its surplus or earnings or profit account?

A. Certainly.

Q. And is it or is it not a fact that this reserve, I am referring to Item 10 still, is based on actual experience as to the number of disability cases rather than on a theoretical computation?

A. No, I would say it was not a fact. It is based on theoretical computations.

Q. And each theoretical computation, if they further prove inadequate, result in the deficiency having to be made up by the company out of its own profits or sulplus?

A. That is right, yes.

Q. Still it is a reserve, however, and is built up on actual [105] disability cases, isn't that correct?

A. In respect to those lives that have become disabled, that is correct.

(Testimony of Bruce E. Shepherd.)

Q. Then it would follow, wouldn't it, that in the particular year the actual experience will differ widely from the theoretical computation?

A. That is quite possible.

MR. HUGH H. EARLE,

called as a witness by and on behalf of the Petitioner, having been first duly sworn, was examined and testified as follows:

Direct Examination

The Clerk: State your name.

The Witness: Hugh H. Earle.

My residence is Salem, Oregon, and I am Insurance Commissioner of the State of Oregon. I know what were the amounts of the Oregon Mutual Life Insurance Company's reserves as of December 31 of 1932, 1933 and 1934, respectively. I would have to refer to the documents that I have with me in order to state the exact figures. The witness referred to a paper and testified that on December 31st, 1932, the total reserves were $9,766,229.08. That is the total reserve which included $13,920.13 for double indemnity benefits, and $51,964.51 reserves for additional deficiency reserves; and on December 31, 1933, the Oregon Mutual Life Insurance Company's reserves were $9,864,496.51. That is the total re-

(Testimony of Hugh H. Earle.)

serve. That includes $13,505.37 reserves for double indemnity, and $48,819.98 reserves for additional deficiency reserves. On December 31, 1934, the reserves were $10,304,131.88, which included $13,577.21 reserves for double indemnity benefits, and $41,313.07 reserves for additional deficiency reserves. Those are the three years claimed.

The Insurance Department of Oregon made an examination of the Oregon Mutual Life Insurance Company for the year 1933. They come up [106] for examination every three years. They come up again this year. The Insurance Department of the State of Oregon verified the accuracy of the reserve calculations of the Oregon Mutual Life Insurance Company to which I have just testified. These examinations are made every three years for the three preceding years according to the statute. The examination was made to see if the company was financially responsible, to see if they were treating the public fairly and treating the policyholders fairly and to see that they were going to have ample protection and give them the protection that was due them. If the reserves of the Oregon Mutual Life Insurance Company had not complied with the requirements of the Insurance Department of the State the Company would not be operating today, and I would take them over for rehabilitation; according to the statute we would then have to close them up.

(Testimony of Hugh H. Earle.)

Cross Examination
of Mr. Hugh H. Earle

The document from which I read when I testified with reference to the reserves of the Oregon Mutual Life Insurance Company is the document that was handed to me sometime ago in regard to the reserves of this company. I was informed that in all probability I would be asked by somebody what they were, and for me to check them against my figures in my office. Now, if the Court really wants a certified copy of this, I can procure it for the Court. It is only a matter of four or five hours going to Salem. We do this regularly for all insurance companies. The papers were handed me by the vice-president of the Oregon Mutual Life Insurance Company. He called me on the 'phone yesterday about it and handed me the written questions today. The Oregon Mutual Life Insurance Company always files with the Insurance Department of the State of Oregon [107] an annual report. It filed reports for the years 1932, 1933 and 1934. The figures I stated on direct examination are the figures that appear in those annual statements. I had one of my secretaries check the figures. I did not check them personally.

The examiners from California, Oregon and Washington who made the examination for the year 1933 made a report to the different Commissioners. One of the reports was received in the office of

(Testimony of Hugh H. Earle.)

which I am Commissioner. I do not have the report with me, it is in Salem. The purpose of the report was to inquire into whether the company had assets in excess of its present or contingent liabilities. According to the examination reports the company had sufficient assets for that purpose at the close of the year 1933. I have read the report; it came to me in my official capacity as Insurance Commissioner of the State of Oregon, and I have ascertained the financial condition of the Oregon Mutual Life Insurance Company as at the close of 1933. Mr. Schuppel, the president of the Oregon Mutual Life Insurance Company and I went over the report very thoroughly in March of this year (1937) and I satisfied myself that as of December 31, 1933, the Oregon Mutual Life Insurance Company was financially sound. I do not pay any attention to the Federal Government. We run the State of Oregon without any help from the Federal Government. I have been Insurance Commissioner of the State of Oregon for three years.

We hold our examinations under our National Association of Insurance Commissioners. Possibly the Judge will permit me to go into detail a little bit for just a minute. The United States is divided up into six zones of eight states to a zone, and when a company comes up for examination, which they do every three years, your Honor, the Secretary of the Association [108] will notify the Chair-

(Testimony of Hugh H. Earle.)

man of each one of these zones that such and such an examination is coming up, and if he will please designate an Examiner from his zone to represent all the eight states in that zone. However, if this company is a small company and is not doing business in all of the zones, or in only one or two zones, he will ask the Chairman of that zone to designate three States in his own zone to make an examination of such and such a company. It all depends whether the company does business through all six zones of the United States or in only one. It only takes, for the ordinary company, eight or nine or ten examinations with a few examiners the company will put in—these are expensive examinations. The examiners draw $25 a day and their expenses. Most of them are actuaries and they pay them a good salary. If only one company is taking an examination, it will, of course, work a hardship upon that company, but when we consider the whole United States, say for instance, that the whole United States goes into an examination, you might say that there is no one company that is being examined by one State every year, and neither are there forty-eight different States making forty-eight different examinations, and this particular company, only being in three or four states was examined by the States of Washington, Oregon and California. The Examiners, at the conclusion of an examination, sign this report and send it to each one of the Com-

(Testimony of Hugh H. Earle.)

missioners, and the Commissioner has it photostated and sent to other Commissioners whenever it is asked for. That is the way we get the examinations from all of the companies. Does that answer your question? This company comes up for examination again this year. [109]

MR. R. R. BROWN,

being first duly sworn, testified on behalf of the taxpayer as follows:

I am the chief actuary of the Oregon Mutual Life Insurance Company. I have been an actuary eighteen years. I am familiar with the general principles and practices that control in actuarial computations and calculations and with principles that are used by all life insurance companies in the calculations of premiums and reserves for all kinds of policies. I have heard the testimony of Mr. Shepherd. I believe the various statements and principles and applications and calculations and computations that Mr. Shepherd has given are correct so far as my knowledge of the subject is concerned. The two policy forms—Exhibits 9 and 10, respectively—are representative forms and policies of those two kinds (with disability benefits and without disability benefits) issued by the Oregon Mutual Life Insurance Company.

(Testimony of R. R. Brown.)

PETITIONER'S EXHIBIT No. 9

Premium $.....

Amount $.....

Oregon Life Insurance Company
of Portland, Oregon.

L. Samuel, Founder, February 24, 1906

Age .....

Number .....

Oregon Life Insurance Company of Portland, Oregon, hereby insures the life of.....
.....hereinafter called the Insured, and on receipt of satisfactory proofs of the death of the said Insured, provided this policy is then in force, agrees to pay.....at its Office in the City of Portland in the State of Oregon, to.....the Insured's executors, administrators or assigns, subject to the right of the Insured to change the beneficiary, and subject to the

Privileges and Conditions

stated on the Second and Third Pages hereof, which form a part of this contract as fully as if recited at length over the signatures hereto affixed.

Portland, Oregon, ...

~~A. L. MILLS~~
~~President~~

C. F. ADAMS
President

.....
Secretary

Examined by

Ordinary Life Advance Dividend. [112]

(Testimony of R. R. Brown.)

(Petitioner's Exhibit No. 9 Continued.)

Second Page

PRIVILEGES AND CONDITIONS

I. Incontestability.

After one year from its date of issue, this policy shall be indisputable for the amount due, provided premiums have been duly paid, subject, however, to the provisions of Sections VII and XIII hereof.

II. Occupation, Residence and Travel.

There are no restrictions under this policy upon travel, residence, occupation, military or naval service, excepting for one year from its date of issue, during which time travel or residence in Mexico or the Torrid Zone, or engagement, occupation or employment in blasting, mining, submarine labor, aeronautic ascensions, the manufacture, handling or transportation of inflammable or explosive substances, service upon railroad trains, or in switching or coupling cars, or on any steamboat or vessel will render this policy void, and excepting military or naval service in war, which is at all times subject to and permitted only in accordance with the provisions of Section XIII on the third page hereof.

III. Grace in the Payment of Premiums.

A grace of one calendar month (but not less than thirty days), during which the policy remains in full force, will be allowed in the payment of all pre-

(Testimony of R. R. Brown.)

(Petitioner's Exhibit No. 9 Continued.)

miums, except the first, subject to an interest charge at the rate of five per cent, per annum.

IV. Reinstatement.

Should this policy lapse by reason of the non-payment of any premium, it may be reinstated at any time upon the Insured furnishing evidence of good health satisfactory to the Company, and the payment of all arrears and any indebtedness to the Company under this contract existing at the date of lapse, with interest thereon at the rate of five per cent. per annum.

V. Change of Beneficiary.

This policy is issued with the express understanding that the Insured may, from time to time during its continuance, change the beneficiary or beneficiaries, by filing with the Company a written request, accompanied by this policy, such change to take effect upon the endorsement of the same on the policy by the Company, provided this policy has not been assigned and notice of such assignment recorded on the books of the Company, or if assigned, that all assignments shall have been duly cancelled or released on the books of the Company.

VI. Assignment.

No assignment of this policy shall take effect unless made in writing in duplicate, the original at-

(Testimony of R. R. Brown.)

(Petitioner's Exhibit No. 9 Continued.)

tached to this policy and the duplicate filed in the Home Office of the Company. The Company will not assume any responsibility for the validity of an assignment.

VII. Misstatement of Age.

If the age of the Insured be misstated, the amount payable under this policy shall be adjusted in accordance with the correct age of the Insured.

VIII. Suicide.

Self-destruction, sane or insane, within one year from date of the issuance of this policy, is a risk not assumed by the Company under this contract.

IX. Loans and Surrender Values.

After this policy has been in force three years the Company will make loans thereon at five per cent. interest per annum, payable in advance, of the respective amounts stated in the following table, upon the due assignment of this policy to the Company as collateral security for such loan.

This policy shall lapse and together with all premiums paid thereon shall forfeit to the Company on the non-payment of any premium when due, except that provided premiums shall have been paid for the periods respectively mentioned in the following table, there will be granted, without action on the part of the Insured, Paid-Up Life Insurance

(Testimony of R. R. Brown.)

(Petitioner's Exhibit No. 9 Continued.)

for the amount fixed in said table; or, in lieu thereof, at the option of the Insured (1) the cash value fixed in said table upon the surrender of this policy to the Company at its Home Office in Portland, Oregon, at any time after its termination; or (2) (provided this policy is surrendered within the days of grace, or, with satisfactory evidence of good health, within one year thereafter) a paid-up term policy for the full amount insured under this policy for the time stated in said table. The paid-up insurance, cash value and paid-up term policy referred to herein are based on the number of full years' premiums that have been paid, are granted without participation in profits, and are subject to reduction for any indebtedness to the Company under this contract. The reserve basis used in computing the premiums and values under this policy is the American Experience Table of Mortality, with interest at three and one-half per cent. per annum.

(Petitioner's Exhibit No. 9 Continued.)

TABLE OF LOANS AND OF SURRENDER VALUES

Either in Cash, Paid-Up or Extended Insurance, In Accordance With the Provisions of Section IX Above.

AT THE END OF	PAID-UP LIFE INSURANCE Granted automatically, unless other settlement selected	LOAN OR CASH VALUES	EXTENDED TERM INSURANCE For face of policy from date of non-payment of premium	AT THE END OF	PAID-UP LIFE INSURANCE Granted automatically, unless other settlement selected	LOAN OR CASH VALUES	EXTENDED TERM INSURANCE For face of policy from date of non-payment of premium
3 Years	$.....	$.....	.....years.....months	12 Years	$.....	$.....	.....years.....months
4 "	$.....	$.....	.....years.....months	13 "	$.....	$.....	.....years.....months
5 "	$.....	$.....	.....years.....months	14 "	$.....	$.....	.....years.....months
6 "	$.....	$.....	.....years.....months	15 "	$.....	$.....	.....years.....months
7 "	$.....	$.....	.....years.....months	16 "	$.....	$.....	.....years.....months
8 "	$.....	$.....	.....years.....months	17 "	$.....	$.....	.....years.....months
9 "	$.....	$.....	.....years.....months	18 "	$.....	$.....	.....years.....months
10 "	$.....	$.....	.....years.....months	19 "	$.....	$.....	.....years.....months
11 "	$.....	$.....	.....years.....months	20 "	$.....	$.....	.....years.....months

If this policy should be continued beyond the period covered by this table, it will be entitled, under the above conditions to a surrender value in cash or paid-up insurance, which will increase from year to year. These values will be furnished upon request.

[118]

(Testimony of R. R. Brown.)

(Petitioner's Exhibit No. 9 Continued.)

Third Page

X. Alternative Methods of Settlement at Maturity of Policy.

The insured, with power of revocation, by written notice to the Company at its Home Office, may elect to have the whole or any part of the net sum payable under this policy, upon the death of the insured, retained by the Company and paid out as provided below instead of in one sum. In case no such election has been made by the insured the beneficiary may so elect. These modes of settlement are, however, not applicable to a policy which is payable to an assignee, to a corporation, to a co-partnership or association.

(Testimony of R. R. Brown.)

(Petitioner's Exhibit No. 9 Continued.)

Option 1. Installment Payment.—The payment of equal annual or semi-annual installments covering a specified number of years, in accordance with the table below, for each one thousand dollars of said net sum, the first installment being payable upon receipt of due proof of the death of the insured.

OPTION 1—INSTALLMENT PAYMENTS.

Number Years Specified	Amount of Each Annual Installment	Amount of Each Semi-Annual Installment	Number Years Specified	Amount of Each Annual Installment	Amount of Each Semi-Annual Installment
1	$1,000.00	$504.34	16	$79.88	$40.38
2	508.60	256.54	17	76.38	38.60
3	344.86	173.98	18	73.26	37.02
4	263.04	132.72	19	70.48	35.62
5	214.00	107.98	20	67.98	34.38
6	181.32	91.52	21	65.74	33.24
7	158.02	79.76	22	63.70	32.22
8	140.56	70.96	23	61.86	31.28
9	127.00	64.12	24	60.16	30.44
10	116.18	58.66	25	58.62	29.66
11	107.34	54.22	26	57.20	28.94
12	99.98	50.50	27	55.90	28.28
13	93.78	47.38	28	54.68	27.68
14	88.48	44.70	29	53.56	27.12
15	83.90	42.40	30	52.54	26.60

(Testimony of R. R. Brown.)

(Petitioner's Exhibit No. 9 Continued.)

Option 2. Life Income.—The payment of equal annual installments for a fixed period of twenty-five years and for so many years longer as the payee shall survive, in accordance with the table below for each one thousand dollars of said net sum, the first installment being payable upon receipt of due proof of the death of the insured.

OPTION 2—LIFE INCOME.

Age of Payee at Death of Insured	Amount of Each Installment	Age of Payee at Death of Insured	Amount of Each Installment	Age of Payee at Death of Insured	Amount of Each Installment	Age of Payee at Death of Insured	Amount of Each Installment
10&under	$40.35	24	$43.28	38	$48.10	52	$54.42
11	40.51	25	43.55	39	48.52	53	54.84
12	40.68	26	43.84	40	48.95	54	55.25
13	40.85	27	44.13	41	49.40	55	55.63
14	41.03	28	44.44	42	49.84	56	56.00
15	41.22	29	44.76	43	50.30	57	56.35
16	41.41	30	45.08	44	50.76	58	56.67
17	41.62	31	45.42	45	51.22	59	56.96
18	41.83	32	45.77	46	51.68	60	57.23
19	42.05	33	46.13	47	52.15	61	57.47
20	42.28	34	46.50	48	52.62	62	57.69
21	42.51	35	46.89	49	53.08	63	57.87
22	42.76	36	47.28	50	53.53	64	58.03
23	43.01	37	47.68	51	53.98	65&over	58.16

Any installments payable under Option 1 or Option 2 which shall not have been paid prior to the death of the payee, unless otherwise directed in said notice, shall be commuted at three and one-half per cent. compound interest and be paid in one sum to the executors, administrators or assigns of the payee.

(Testimony of R. R. Brown.)

(Petitioner's Exhibit No. 9 Continued.)

XI. Application and Premiums.

All insurance provided by this policy is based upon the written and printed application therefor, which is made a part of this contract, and the..... annual payment of.....Dollars on the .....day of....., 19....., ...as the premium for one year's preliminary term insurance, and will be renewed and extended upon the further payment of a like amount on or before the.....day of .....thereafter and in each and every year thereafter during the continuance of this policy.

XII. Facility in Making Payments.

All renewal premiums are due in Portland, Oregon, but at the pleasure of the Company suitable persons may be authorized to receive said premiums at other places on or before the due dates, but only on the production of the Company's receipt therefor, signed by the Secretary, and countersigned by the authorized person to whom payment is made. This contract is based upon the receipt of premiums annually in advance, but premiums may be made payable in semi-annual or quarterly installments in advance, in which case any installments necessary to complete the full year's premium, as well as all other indebtedness, shall be deducted from the amount of the claim. This policy is issued upon the

(Testimony of R. R. Brown.)

(Petitioner's Exhibit No. 9 Continued.)

advance dividend plan, and in consideration of the low premium charged, shall have no further share in the profit earnings of the Company.

XIII. Service in War.

Military or naval service in war are not risks assumed by the Company under this contract, unless the Insured shall cause to be sent to the Home Office of the Company in the City of Portland, in the State of Oregon, in advance by registered mail, a written notice of his desire to be classed for one year as a member of the Company's Yearly War Class, in which Class no extra premium will be required in advance, but the actual losses to the Company by war will be annually apportioned among the members of the said class on the basis of the amounts insured under their contracts. This apportionment (which it is guaranteed will not exceed 10 per cent. of the amount insured in any one year) may then either be paid in cash, or charged by the Company as a lien, with interest, against any moneys payable under each contract respectively. Pending such apportionment, a sum equal to 10 per cent. of its face will be withheld by the Company in the settlement of each maturing contract. Such mailing of notice shall be the sole and essential requisite for entrance into this War Class and in acceptation of its conditions of membership, and shall act as a waiver of all restrictions against military or naval

(Testimony of R. R. Brown.)

(Petitioner's Exhibit No. 9 Continued.)

service in war. In the event of the death of the Insured through service in war without membership in the Yearly War Class as thus defined, and without first obtaining a special permit for such service, the reserve under the policy only will be due.

XIV. Benefits for Permanent Disability.

1. If, after one year's premium shall have been paid on this policy and before default in the payment of any subsequent premium, the insured shall furnish to the Company due proof that, before attaining the age of sixty, he has become wholly disabled by bodily injury or disease so that he is and thereby will be permanently and continuously unable to engage in any occupation whatever for remuneration or profit, and that such disability has existed continuously for not less than sixty (60) days prior to the furnishing of proof, the Company, by endorsement hereon, shall waive the payment of the premiums which thereafter may become due under this policy during the continuance of the said total disability of the insured. Furthermore, the said Company will pay to the insured an annual sum equal to one-tenth (1/10) of the face of this policy, the first annual payment to be made six (6) months after receipt of due proof of the said total disability accompanied by this policy for endorsement, and subsequent payments shall be made annually thereafter during the continuance of the said total dis-

(Testimony of R. R. Brown.)

(Petitioner's Exhibit No. 9 Continued.)

ability of the insured prior to the maturity of this policy. The amount of this policy payable at maturity or as a death claim shall not be reduced by any payments made under this disability provision, nor shall the Company deduct any part of the premium which may have been waived under this provision. The non-forfeiture values of this policy shall increase from year to year in the same manner as though any premium waived under this provision had been paid in cash.

2. Immediately after the happening of the disability, full particulars thereof must be given to the Company at its Home Office, together with the then address and whereabouts of the insured, and within one hundred and twenty days after the happening of the disability there must be given the Company, at its Home Office, upon blanks furnished by the Company, satisfactory proof of disability.

3. Should the Company accept proofs of permanent disability under this policy, it may, nevertheless, at any time thereafter, but not oftener than once a year subsequent to the first payment of the disability annuity, demand of the insured due proof of the continuance of such total disability; and upon failure to furnish such proof, or if it be established that the insured has engaged or has become able to engage in any occupation whatever for remuneration or profit all disability benefits under this policy shall thereupon cease.

(Testimony of R. R. Brown.)

(Petitioner's Exhibit No. 9 Continued.)

4. Without prejudice to any other cause of total disability the entire and irrecoverable loss of the sight of both eyes or the severance of both hands at or above the wrists, or of both feet at or above the ankles, or of one entire hand and one entire foot, shall be considered as total and permanent disability.

5. While any non-forfeiture provision set forth in this policy is in effect, no disability benefits shall accrue, nor shall any disability benefits apply in case the insured engage in military or naval service in time of war. Upon written request by the insured, accompanied by this policy for endorsement, the provision for disability benefits may be discontinued. If so discontinued, permiums thereafter will be reduced by.....dollars yearly, being the additional premium for such benefits. Non-payment of the said additional premium will void the provisions respecting disability and the benefits secured thereby.

6. No suit on account of alleged disability shall be maintainable, if commenced before the expiration of one year or after the expiration of two years from the date of the happening of the disability.

7. If there is a failure to comply with any one of the foregoing provisions, no claim on account of disability shall arise or be valid or enforceable.

(Testimony of R. R. Brown.)

(Petitioner's Exhibit No. 9 Continued.)

XV. Policy and Application the Entire Contract.

This policy and application therefor, taken together, constitute the entire contract, which cannot be varied except in writing by two of the following officers of the Company at its Home Office, Portland, Oregon, viz.: the President and General Manager or Assistant Manager, or one of the Vice-Presidents and General Manager or Assistant Manager. [114]

OREGON LIFE INSURANCE COMPANY
of Portland, Oregon

Advance Dividend Ordinary Life Policy
with Guaranteed Values

No.....

.....

Amount, $..... Age.....

.....Premium, $.....

.....

.....

.....

Due.....

.....

Register Date of Policy:

.....

This is an Advance Dividend
Ordinary Life Policy

(Testimony of R. R. Brown.)

(Petitioner's Exhibit No. 9 Continued.)

To keep it in force for the full amount of $..... the premiums must be paid during the entire lifetime of the Insured.

Or this policy may be surrendered at any time after the end of the third year if all premiums have been duly paid, for:

(1) Extended insurance,

(2) Paid-up insurance, or

(3) Cash value.

As provided in Section IX, on page 2, hereof.

Every figure in connection with this contract is written in the policy and is guaranteed.

Beware of any agent who advises you to discontinue this policy in order to take another in its place. He is seeking his own profit at your expense. Insist upon his putting his proposal in writing. Then submit it to Oregon Life for information and counsel, which are always at your service.

COPY OF APPLICATION

I, ..., hereby apply to Oregon Life Insurance Company for a Policy on the.....Advance Dividend Plan.....Special Total Disability for $....., with a.....annual premium of $.....

My occupation is that of.....

My residence is No.....

My place of business is No.....

(Testimony of R. R. Brown.)

(Petitioner's Exhibit No. 9 Continued.)

Send Premium Notices to No.....

I was born at.....on the.....

of....., 1..... My age at my nearest birthday is therefore.....years.

Make policy payable to.....

if living at my death; otherwise to my executors, administrators, or assigns—it being expressly understood and agreed that I reserve the right, provided the policy is not then assigned, to change any beneficiary or beneficiaries named by me, by filing with the Company during the continuance of the policy a written request accompanied by the policy, such change to take effect upon the endorsement of the same on the policy by the Company. I further reserve the right, as my option, provided the policy is not then assigned, to surrender the policy, and to receive the surrender value thereof as therein provided. I hereby agree that this application, and the policy hereby applied for, taken together, shall constitute the entire contract between the parties hereto; that all statements made by me herein shall in the absence of fraud be deemed representations and not warranties; and that no such statement or statements shall be used in defense of a claim under the policy unless contained in my written application and unless a copy of such statement or statements be endorsed upon or attached to the policy when issued; and that this contract shall not take effect until the first premium has been paid during my good health.

(Testimony of R. R. Brown.)

(Petitioner's Exhibit No. 9 Continued.)

I have not been declined or postponed by any life Company or received a policy different in form from the one originally applied for, nor have I been intemperate, or had any serious illness or disease, except diseases incident to childhood, and there is no history of consumption or insanity in my family, i. e., among parents, brothers or sisters, uncles or aunts. I further agree and contract to present myself to the medical examiner of the Company for examination when called upon to do so to complete this contract.

Note.—If applicant has ever been declined or postponed by any Life Company, or received a Policy different from the form originally applied for, or been intemperate, or had any serious illness or diseases other than childhood diseases or if there is any history of insanity or consumption in applicant's family—among parents, brothers, sisters, uncles or aunts, state particulars here.

I have insurance on my life as follows:

Name of Company Amount Plan When Issued

.....

.....

.....

I have paid to....., $.....,
the first.....annual premium on the policy applied for, on the condition that if the risk is not assumed by the Company this settlement is to be

(Testimony of R. R. Brown.)

(Petitioner's Exhibit No. 9 Continued.)

returned in accordance with the provisions of Conditional Receipt No....., which I have accepted subject to the provisions thereof.

Dated at ....., 19.....

.....

Signature of person whose life is proposed for insurance

[Endorsed]: Petitioner's Exhibit No. 9. Filed July 8, 1937. [115]

PETITIONER'S EXHIBIT No. 10

Premium $.....

Amount $.....

OREGON LIFE INSURANCE COMPANY

of Portland, Oregon

L. Samuels, Founder, February 24, 1906

Age.....

Number.....

Oregon Life Insurance Company of Portland, Oregon, hereby insures the life of.....

.....hereinafter called the Insured, and on receipt of satisfactory proofs of the death of the said Insured, provided this policy is then in force, agrees to pay.....at its Office in the City of Portland in the State of Oregon, to.....the Insured's executors, administrators or assigns, subject to the right of the Insured to change the beneficiary, and subject to the

(Testimony of R. R. Brown.)

(Petitioner's Exhibit No. 10 Continued.)

Privileges and Conditions

stated on the Second and Third Pages hereof, which form a part of this contract as fully as if recited at length over the signatures hereto affixed.

Portland, Oregon, ...

~~A. L. MILLS~~
~~President~~

C. F. ADAMS
President

.....
Secretary

Examined by

Ordinary Life Advance Dividend [116]

Second Page

PRIVILEGES AND CONDITIONS

I. Incontestability

After one year from its date of issue, this policy shall be indisputable for the amount due, provided premiums have been duly paid, subject, however, to the provisions of Sections VII and ..III hereof.

II. Occupation, Residence and Travel

There are no restrictions under this policy upon travel, residence, occupation, military or naval service, excepting for one year from its date of issue, during which time travel or residence in Mexico or the Torrid Zone, or engagement, occupation or employment in blasting, mining, submarine labor, aero-

(Testimony of R. R. Brown.)

(Petitioner's Exhibit No. 10 Continued.)

nautic ascensions, the manufacture, handling or transportation of inflammable or explosive substances, service upon railroad trains, or in switching or coupling cars, or on any steamboat or vessel, will render this policy void, and excepting military or naval service in war, which is at all times subject to and permitted only in accordance with the provisions of Section XIII on the third page hereof.

III. Grace in the Payment of Premiums

A grace of one calendar month (but not less than thirty days), during which the policy remains in full force, will be allowed in the payment of all premiums, except the first, subject to an interest charge at the rate of five per cent. per annum.

IV. Reinstatement

Should this policy lapse by reason of the non-payment of any premium, it may be reinstated at any time upon the Insured furnishing evidence of good health satisfactory to the Company, and the payment of all arrears and any indebtedness to the Company under this contract existing at the date of lapse, with interest thereon at the rate of five per cent. per annum.

V. Change of Beneficiary

This policy is issued with the express understanding that the Insured may, from time to time during its continuance, change the beneficiary or beneficiaries, by filing with the Company a written re-

(Testimony of R. R. Brown.)

(Petitioner's Exhibit No. 10 Continued.)

quest, accompanied by this policy, such change to take effect upon the endorsement of the same on the policy by the Company, provided this policy has not been assigned and notice of such assignment recorded on the books of the Company, or if assigned, that all assignments shall have been duly cancelled or released on the books of the Company.

VI. Assignment

No assignment of this policy shall take effect unless made in writing in duplicate, the original attached to this policy and the duplicate filed in the Home Office of the Company. The Company will not assume any responsibility for the validity of an assignment.

VII. Misstatement of Age

If the age of the Insured be misstated, the amount payable under this policy shall be adjusted in accordance with the correct age of the Insured.

VIII. Suicide

Self-destruction, sane or insane, within one year from date of the issuance of this policy, is a risk not assumed by the Company under this contract.

IX. Loans and Surrender Values

After this policy has been in force three years the Company will make loans thereon at five per cent. interest per annum, payable in advance, of the

(Testimony of R. R. Brown.)

(Petitioner's Exhibit No. 10 Continued.)

respective amounts stated in the following table, upon the due assignment of this policy to the Company as collateral security for such loan.

This policy shall lapse and together with all premiums paid thereon shall forfeit to the Company on the non-payment of any premium when due, except that provided premiums shall have been paid for the periods respectively mentioned in the following table, there will be granted, without action on the part of the Insured, Paid-Up Life Insurance for the amount fixed in said table; or, in lieu thereof, at the option of the Insured (1) the cash value fixed in said table upon the surrender of this policy to the Company at its Home Office in Portland, Oregon, at any time after its termination; or (2) (provided this policy is surrendered within the days of grace, or, with satisfactory evidence of good health, within one year thereafter) a paid-up term policy for the full amount insured under this policy for the time stated in said table. The paid-up insurance, cash value and paid-up term policy referred to herein are based on the number of full years' premiums that have been paid, are granted without participation in profits, and are subject to reduction for any indebtedness to the Company under this contract. The reserve basis used in computing the premiums and values under this policy is the American Experience Table of Mortality, with interest at three and one-half per cent. per annum.

(Petitioner's Exhibit No. 9 Continued.)

TABLE OF LOANS AND OF SURRENDER VALUES

Either in Cash, Paid-Up or Extended Insurance, In Accordance With the Provisions of Section IX Above.

AT THE END OF	PAID-UP LIFE INSURANCE Granted automatically, unless other settlement selected	LOAN OR CASH VALUES	EXTENDED TERM INSURANCE For face of policy from date of non-payment of premium	AT THE END OF	PAID-UP LIFE INSURANCE Granted automatically, unless other settlement selected	LOAN OR CASH VALUES	EXTENDED TERM INSURANCE For face of policy from date of non-payment of premium
3 Years	$.....	$.....	.....years.....months	12 Years	$.....	$.....	.....years.....months
4 "	$.....	$.....	.....years.....months	13 "	$.....	$.....	.....years.....months
5 "	$.....	$.....	.....years.....months	14 "	$.....	$.....	.....years.....months
6 "	$.....	$.....	.....years.....months	15 "	$.....	$.....	.....years.....months
7 "	$.....	$.....	.....years.....months	16 "	$.....	$.....	.....years.....months
8 "	$.....	$.....	.....years.....months	17 "	$.....	$.....	.....years.....months
9 "	$.....	$.....	.....years.....months	18 "	$.....	$.....	.....years.....months
10 "	$.....	$.....	.....years.....months	19 "	$.....	$.....	.....years.....months
11 "	$.....	$.....	.....years.....months	20 "	$.....	$.....	.....years.....months

If this policy should be continued beyond the period covered by this table, it will be entitled, under the above conditions to a surrender value in cash or paid-up insurance, which will increase from year to year. These values will be furnished upon request.

[117]

(Testimony of R. R. Brown.)

(Petitioner's Exhibit No. 10 Continued.)

Third Page

X. Alternative Methods of Settlement at Maturity of Policy

The insured, with power of revocation, by written notice to the Company at its Home Office, may elect to have the whole or any part of the net sum payable under this policy, upon the death of the insured, retained by the Company and paid out as provided below instead of in one sum. In case no such election has been made by the insured the beneficiary may so elect. These modes of settlement are, however, not applicable to a policy which is payable to an assignee, to a corporation, to a co-partnership or association.

(Testimony of R. R. Brown.)

(Petitioner's Exhibit No. 10 Continued.)

Option 1. Installment Payment.—The payment of equal annual or semi-annual installments covering a specified number of years, in accordance with the table below, for each one thousand dollars of said net sum, the first installment being payable upon receipt of due proof of the death of the insured.

OPTION 1—INSTALLMENT PAYMENTS.

Number Years Specified	Amount of Each Annual Installment	Amount of Each Semi-Annual Installment	Number Years Specified	Amount of Each Annual Installment	Amount of Each Semi-Annual Installment
1	$1,000.00	$504.34	16	$79.88	$40.38
2	508.60	256.54	17	76.38	38.60
3	344.86	173.98	18	73.26	37.02
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6	181.32	91.52	21	65.74	33.24
7	158.02	79.76	22	63.70	32.22
8	140.56	70.96	23	61.86	31.28
9	127.00	64.12	24	60.16	30.44
10	116.18	58.66	25	58.62	29.66
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12	99.98	50.50	27	55.90	28.28
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15	83.90	42.40	30	52.54	26.60

(Testimony of R. R. Brown.)

(Petitioner's Exhibit No. 10 Continued.)

Option 2. Life Income.—The payment of equal annual installments for a fixed period of twenty-five years and for so many years longer as the payee shall survive, in accordance with the table below for each one thousand dollars of said net sum, the first installment being payable upon receipt of due proof of the death of the insured.

OPTION 2—LIFE INCOME.

Age of Payee at Death of Insured	Amount of Each Installment	Age of Payee at Death of Insured	Amount of Each Installment	Age of Payee at Death of Insured	Amount of Each Installment	Age of Payee at Death of Insured	Amount of Each Installment
10&under	$40.35	24	$43.28	38	$48.10	52	$54.42
11	40.51	25	43.55	39	48.52	53	54.84
12	40.68	26	43.84	40	48.95	54	55.25
13	40.85	27	44.13	41	49.40	55	55.63
14	41.03	28	44.44	42	49.84	56	56.00
15	41.22	29	44.76	43	50.30	57	56.35
16	41.41	30	45.08	44	50.76	58	56.67
17	41.62	31	45.42	45	51.22	59	56.96
18	41.83	32	45.77	46	51.68	60	57.23
19	42.05	33	46.13	47	52.15	61	57.47
20	42.28	34	46.50	48	52.62	62	57.69
21	42.51	35	46.89	49	53.08	63	57.87
22	42.76	36	47.28	50	53.53	64	58.03
23	43.01	37	47.68	51	53.98	65&over	58.16

Any installments payable under Option 1 or Option 2 which shall not have been paid prior to the death of the payee, unless otherwise directed in said notice, shall be commuted at three and one-half per cent. compound interest and be paid in one sum to the executors, administrators or assigns of the payee.

(Testimony of R. R. Brown.)

(Petitioner's Exhibit No. 10 Continued.)

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All insurance provided by this policy is based upon the written and printed application therefor, which is made a part of this contract, and the..... annual payment of.....Dollars on the.....day of....., 19....., ...as the premium for one year's preliminary term insurance, and will be renewed and extended upon the further payment of a like amount on or before the.....day of.....thereafter and in each and every year thereafter during the continuance of this policy.

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All renewal premiums are due in Portland, Oregon, but at the pleasure of the Company suitable persons may be authorized to receive said premiums at other places on or befoer the due dates, but only on the production of the Company's receipt therefor, signed by the Secretary, and countersigned by the authorized person to whom payment is made. This contract is based upon the receipt of premiums annually in advance, but premiums may be made payable in semi-annual or quarterly installments in advance, in which case any installments necessary to complete the full year's premium, as well as all other indebtedness, shall be deducted from the amount of the claim. This policy is issued upon the advance dividend plan, and in consideration of the low premium

(Testimony of R. R. Brown.)

(Petitioner's Exhibit No. 10 Continued.)

charged, shall have no further share in the profit earnings of the Company.

XIII. Service in War

Military or naval service in war are not risks assumed by the Company under this contract, unless the Insured shall cause to be sent to the Home Office of the Company in the City of Portland, in the State of Oregon, in advance by registered mail, a written notice of his desire to be classed for one year as a member of the Company's Yearly War Class, in which Class no extra premium will be required in advance, but the actual losses to the Company by war will be annually apportioned among the members of the said class on the basis of the amounts insured under their contracts. This apportionment (which it is guaranteed will not exceed 10 per cent. of the amount insured in any one year) may then either be paid in cash, or charged by the Company as a lien, with interest, against any moneys payable under each contract respectively. Pending such apportionment, a sum equal to 10 per cent. of its face will be withheld by the Company in the settlement of each maturing contract. Such mailing of notice shall be the sole and essential requisite for entrance into this War Class and in acceptation of its conditions of membership, and shall act as a waiver of all restrictions against military or naval service in war. In the event of the death of the Insured

(Testimony of R. R. Brown.)

(Petitioner's Exhibit No. 10 Continued.)

through service in war without membership in the Yearly War Class as thus defined, and without first obtaining a special permit for such service, the reserve under the policy only will be due.

XIV. Policy and Application the Entire Contract

This policy and application therefor, taken together, constitute the entire contract, which cannot be varied except in writing by two of the following officers of the Company at its Home Office, Portland, Oregon, viz.: the President and General Manager or Assistant Manager, or one of the Vice-Presidents and General Manager or Assistant Manager.

[118]

OREGON LIFE INSURANCE COMPANY
of Portland, Oregon

Advance Dividend Ordinary Life Policy
with Guaranteed Values

No.....

.....

Amount, $..... Age.....

.....Premium, $.....

.....

.....

.....

Due.....

.....

Register Date of Policy:

.....

(Testimony of R. R. Brown.)

(Petitioner's Exhibit No. 10 Continued.)

This is an Advance Dividend
Ordinary Life Policy

To keep it in force for the full amount of $..... the premiums must be paid during the entire lifetime of the Insured.

The policy may, however, be surrendered at any time after the end of the third year, if all the premiums have been duly paid, for:

(1) Extended insurance,
(2) Paid-up insurance,
(3) Cash.

Every figure in connection with this contract is written in the policy and is guaranteed.

Beware of any agent who advises you to discontinue this policy in order to take another in its place. He is seeking his own profit at your expense. Insist upon his putting his proposal in writing. Then submit it to Oregon Life for information and counsel, which are always at your service.

Copy of Application

I, ..., hereby apply to Oregon Life Insurance Company for a Policy on the.....Advance Dividend Plan for $....., with a.....annual premium of $.....

My occupation is that of.....

My residence is No.....

My place of business is No.....

(Testimony of R. R. Brown.)

(Petitioner's Exhibit No. 10 Continued.)

Send Premium Notices to No.....

I was born at.....on the.....

of....., 1..... My age at my nearest birthday is therefore.....years.

Make policy payable to.....

if living at my death; otherwise to my executors, administrators, or assigns—it being expressly understood and agreed that I reserve the right, provided the policy is not then assigned, to change any beneficiary or beneficiaries named by me, by filing with the Company during the continuance of the policy a written request accompanied by the policy, such change to take effect upon the endorsement of the same on the policy by the Company. I further reserve the right, as my option, provided the policy is not then assigned, to surrender the policy, and to receive the surrender value thereof as therein provided. I hereby agree that this application, and the policy hereby applied for, taken together, shall constitute the entire contract between the parties hereto; that all statements made by me herein shall in the absence of fraud be deemed representations and not warranties; and that no such statement or statements shall be used in defense of a claim under the policy unless contained in my written application and unless a copy of such statement or statements be endorsed upon or attached to the policy when issued; and that this contract shall not take effect

(Testimony of R. R. Brown.)

(Petitioner's Exhibit No. 10 Continued.)

until the first premium has been paid during my good health. I have not been declined or postponed by any Life Company or received a policy different in form from the one originally applied for, nor have I been intemperate, or had any serious illness or disease, except diseases incident to childhood, and there is no history of consumption or insanity in my family, i. e., among parents, brothers or sisters, uncles or aunts. I further agree and contract to present myself to the medical examiner of the Company for examination when called upon to do so to complete this contract.

Note.—If applicant has ever been declined or postponed by any Life Company, or received a Policy different from the form originally applied for, or been intemperate, or had any serious illness or diseases other than childhood diseases or if there is any history of insanity or consumption in applicant's family—among parents, brothers, sisters, uncles or aunts, state particulars here.

I have insurance on my life as follows:

Name of Company Amount Plan When Issued

.....

.....

.....

I have paid to....., $.....,
the first.....annual premium on the policy applied for, on the condition that if the risk is not

(Testimony of R. R. Brown.)

(Petitioner's Exhibit No. 10 Continued.)

assumed by the Company this settlement is to be returned in accordance with the provisions of Conditional Receipt No....., which I have accepted subject to the provisions thereof.

Dated at....., 19.....

.....

Signature of person whose life is proposed for insurance.

[Endorsed]: Petitioner's Exhibit No. 10. Filed July 8, 1937. [119]

Cross Examination
of Mr. R. R. Brown.

I also subscribe to and agree with what Mr. Shepherd testified to on his cross-examination.

The Commissioner's exhibits hereinbefore referred to were received in evidence as Exhibits A, B and C, being Annual Statements for the years 1933, 1934, and 1932, respectively.

Form 7

RESPONDENT'S EXHIBIT "A"

(Page 5)

Life Insurance Company

V.—LIABILITIES, SURPLUS, AND OTHER FUNDS

Net present value of all the outstanding policies in force on the 31st day of December, 1933, as computed by the Actuary on the following tables of mortality and rates of interest, viz:			
American Experience			
1. ~~Actuaries tables~~ at 3½ per cent on *all policies from 1906 to Jan. 1, 1917—all term policies—all paid-up policies.			
Net Level Basis	$2,559,792.00		
Same for reversionary additions		$2,559,792.00	
2. American Experience table at 3½ per cent on *all policies from Jan. 1, 1917 to Aug. 16, 1920 except term & joint policies and 20 Payment Life Reducing Premium Policies —Full Preliminary Term	$		
Same for reversionary additions		1,820,719.00	
3. American Experience table at 3½ per cent on *all policies from 8-16-20 to 12-31-35 except Term, Joint, Special and Ordinary Life & Retirement Annuities, all 20 Pay Life Reducing Premium policies issued after Jan. 1, 1917—Illinois Standard	$		
Same for reversionary additions		4,848,900.00	
4. Other tables and rates, viz:*			
American Experience Table at 3½% on all Special Ordinary Life policies from 5-1-27 to 12-31-33. Modified Net Level	$ 221,580.00		
Makehanized American Experience Table at 3½%. All Joint Policies—Illinois Standard	59,592.00		
Same for reversionary additions		281,172.00	
5. Net present value of annuities (including those in reduction of premiums). Give tables and rates of interest, viz:			
Retirement Annuity—3½%. Compound Interest	$ 132,658.00		
American Experience 3½%	32,103.12		
American Annuitants 4%	53,338.57		
		218,099.69	
Total		$9,728,682.69	
6. Deduct net value of risks of this company reinsured in other solvent companies		157,933.00	
		$9,570,749.69	
7. Net Reserve			$9,570,749.69
8. Extra reserve for total and permanent disability benefits, $110,314.43, and for additional accidental death benefits, $13,505.37, included in life policies			123,819.80
9. Present value of amounts not yet due on supplementary contracts *not* involving life contingencies computed by the Actuary			138,364.19

*State definitely the dates of issue and class of policies covered by each basis of valuation.

RESPONDENT'S EXHIBIT "A" (Cont.)

(Page 5)

10.	Present value of amounts incurred but not yet due for total and permanent disability benefits		121,107.04
11.	Liability on policies canceled and not included in "net reserve" upon which a surrender value may be demanded		
12.	Claims for Death Losses due and unpaid	$	
13.	Claims for Death Losses in process of adjustment or adjusted and not due	18,927.84	
14.	Claims for Death Losses reported for which no proofs have been received		
15.	Reserve for net Death Losses incurred but unreported	2,500.—	
16.	Claims for Matured Endowments due and unpaid	2,628.00	
17.	Claims for Death Losses and other Policy Claims resisted	1,804.32	
18.	Claims for total and permanent disability benefits, $8,177.54; and for additional death benefits, $, including $ resisted	8,177.54	
19.	Due and unpaid on Annuity Claims involving life contingencies		
20.	Total Policy Claims		34,037.70
21.	Due and unpaid on supplementary contracts *not* involving life contingencies		
22.	Dividends left with the company to accumulate at interest, and accrued interest thereon		328,572.54
23.	Premiums paid in advance, including surrender values so applied		63,236.33
24.	Unearned interest and rent paid in advance		63,349.61
25.	Commissions due to agents on premium notes when paid		11,325.08
26.	Commissions to agents, due or accrued		642.10
27.	"Cost of collection" on uncollected and deferred premiums, in excess of the loading thereon		
28.	Salaries, rents, office expenses, bills and accounts due or accrued		8,413.98
29.	Medical examiners' fees, $849.00, and legal fees, $, due or accrued		849.00
30.	Estimated amount hereafter payable for Federal, State, and other taxes based upon the business of the year of this statement		30,000.00
31.	Advances by officers or others on account of expenses of organization or otherwise		
32.	Borrowed money, $, and interest thereon $		
33.	~~Unpaid dividends to stockholders~~ Investment Reserve		50,000.00
34.	Dividends or other profits due policyholders, including those contingent on payment of outstanding and deferred premiums		21,835.46
35.	Dividends declared on or apportioned to *annual dividend* policies payable to policyholders to and including (month) December (day) 31 1933, whether contingent upon the payment of renewal premiums or otherwise		258,663.00
36.	Dividends declared on or apportioned to *deferred dividend* policies payable to policyholders to and including (month) (day) 19		
37.	Amounts set apart, apportioned, provisionally ascertained, calculated, declared, or held awaiting apportionment upon *deferred dividend* policies, not included in Item 36		
38.	Reserve, special, or surplus funds not included above (give items and amounts separately, and state for what purpose each of said funds is held):		
39.	Reserve for Surety Bonds		771.20
40.	Additional Deficiency Reserve for Disability		48,819.98
41.			
42.	All other liabilities (give items and amounts):		
43.	Proceeds held in trust with accrued interest thereon		286,408.66
44.	Reserve for Contingencies		200,000.00
45.	Suspense Items		1,757.40
46.			$11,362,722.76
47.	Capital stock		
48.	Unassigned funds (surplus)		690,061.96
49.	Total		$12,052,784.72

Form 7

RESPONDENT'S EXHIBIT "B"

(Page 5)

Oregon Mutual Life Insurance Company

V.—LIABILITIES, SURPLUS, AND OTHER FUNDS

Net present value of all the outstanding policies in force on the 31st day of December, 19 , as computed by the Actuary on the following tables of mortality and rates of interest, viz:

1. American Experience ~~Actuaries tables~~ at 3½ per cent on *all policies from 1906 to Jan. 1, 1917—all term policies—all paid-up policies.			
Net level premium basis	$2,441,821.00		
Same for reversionary additions		$2,441,821.00	
2. American Experience table at 3½ per cent on *all policies from Jan. 1, 1917 to Aug. 16, 1920 except term & joint policies and 20 Payment Life Reducing Premium Policies —Full Preliminary Term	$1,757,683.00		
Same for reversionary additions		1,757,683.00	
3. American Experience table at 3½ per cent on *all policies from Aug. 16, 1920 to Dec. 31, 1934 except Term, Joint. Special Ordinary Life & Retirement Annuities, all 20 Payment Life Reducing Premium policies issued after Jan. 1, 1917—Illinois Standard	$5,176,032.00		
Same for reversionary additions		5,176,032.00	
4. Other tables and rates, viz:* American Experience Table at 3½% on all Special Ordinary Life policies from 5-1-27 to 12-31-34. Modified Net Level	$ 245,776.00		
Makehanized American Experience Table at 3½%. All Joint Policies—Illinois Standard	58,408.00		
Same for reversionary additions		304,184.00	
5. Net present value of annuities (including those in reduction of premiums). Give tables and rates of interest, viz:			
Retirement Annuity—3½% Compound Interest	$ 239,934.00		
American Experience 3½%	70,113.58		
American Annuitants 4%	159,055.31		
		469,102.89	
Total		$10,148,822.89	
6. Deduct net value of risks of this company reinsured in other solvent companies		169,882.00	
		$9,978,940.89	
7. Net Reserve			$9,978,940.89
8. Extra reserve for total and permanent disability benefits, $153,253.81; and for additional accidental death benefits, $13,577.21, included in life policies			166,831.02
9. Present value of amounts not yet due on supplementary contracts *not* involving life contingencies computed by the Actuary			212,150.30

*State definitely the dates of issue and class of policies covered by each basis of valuation.

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10.	Present value of amounts incurred but not yet due for total and permanent disability benefits		158,359.97
11.	Liability on policies canceled and not included in "net reserve" upon which a surrender value may be demanded		None
12.	Claims for Death Losses due and unpaid	$	
13.	Claims for Death Losses in process of adjustment or adjusted and not due		
14.	Claims for Death Losses reported for which no proofs have been received	5,526.00	
15.	Reserve for net Death Losses incurred but unreported	2,500.00	
16.	Claims for Matured Endowments due and unpaid	4,133.00	
17.	Claims for Death Losses and other Policy Claims resisted		
18.	Claims for total and permanent disability benefits, $2,082.02; and for additional accidental death benefits, $..., including $... resisted	2,082.02	
19.	Due and unpaid on Annuity Claims involving life contingencies		
20.	Total Policy Claims		14,241.02
21.	Due and unpaid on supplementary contracts *not* involving life contingencies		None
22.	Dividends left with the company to accumulate at interest, and accrued interest thereon		345,107.37
23.	Premiums paid in advance, including surrender values so applied		75,216.84
24.	Unearned interest and rent paid in advance		58,771.09
25.	Commissions due to agents on premium notes when paid		8,333.52
26.	Commissions to agents, due or accrued		1,480.12
27.	"Cost of collection" on uncollected and deferred premiums, in excess of the loading thereon		None
28.	Salaries, rents, office expenses, bills and accounts due or accrued		5,017.33
29.	Medical examiners' fees, $1,364.50, and legal fees, $..., due or accrued		1,364.50
30.	Estimated amount hereafter payable for Federal, State, and other taxes based upon the business of the year of this statement		30,000.00
31.	Advances by officers or others on account of expenses of organization or otherwise		None
32.	Borrowed money, $..., and interest thereon $...		None
33.	~~Unpaid dividends to stockholders~~ Special Investment Reserve		75,600.00
34.	Dividends or other profits due policyholders, including those contingent on payment of outstanding and deferred premiums		18,491.78
35.	Dividends declared on or apportioned to *annual dividend* policies payable to policyholders to and including (month) December (day) 31 1934, whether contingent upon the payment of renewal premiums or otherwise		261,987.00
36.	Dividends declared on or apportioned to *deferred dividend* policies payable to policyholders to and including (month)... (day)... 19...		None
37.	Amounts set apart, apportioned, provisionally ascertained, calculated, declared, or held awaiting apportionment upon *deferred dividend* policies, not included in Item 36		None
38.	Reserve, special, or surplus funds not included above (give items and amounts separately, and state for what purpose each of said funds is held):		
39.			
40.			
41.			
42.	All other liabilities (give items and amounts):		
43.	Proceeds held in trust with accrued interest thereon		316,915.68
44.	Reserve for Contingencies		200,000.00
45.	Suspense Items		4,171.37
46.			$11,932,379.80
47.	Capital stock		
48.	Unassigned funds (surplus)		743,537.29
49.	Total		$12,675,917.09

Form 7

RESPONDENT'S EXHIBIT "C"

(Page 5)

Life Insurance Company

V.—LIABILITIES, SURPLUS, AND OTHER FUNDS

Net present value of all the outstanding policies in force on the 31st day of December, 1932, as computed by the Actuary on the following tables of mortality and rates of interest, viz:

American Experience			
1. ~~Actuaries~~ tables at 3½ per cent on *all policies from 1906 to Jan. 1, 1917—all term policies—all paid-up policies. Net level premium basis	$		
Same for reversionary additions			$2,664,976.00
2. American Experience table at 3½ per cent on *all policies from Jan. 1, 1917 to Aug. 16, 1920 except term & joint policies and 20 Payment Life Reducing Premium Policies —Full Preliminary Term	$		
Same for reversionary additions			1,941,752.00
3. American Experience table at 3½ per cent on *all policies from Aug. 16, 1920 to Dec. 31, 1932 except Term, Joint, Special Ordinary Life & Retirement Annuity, all 20 Payment Life Reducing Premium policies issued after Jan. 1, 1917—Illinois Standard	$		
Same for reversionary additions			4,613,407.00
4. Other tables and rates, viz:*			
American Experience Table at 3½% on all Special Ordinary Life policies from 5-1-27 to 12-31-32. Modified Net Level		187,773.00	
Makehanized American Experience Table at 3½%. All Joint Policies—Illinois Standard		65,170.00	
Same for reversionary additions			252,943.00
5. Net present value of annuities (including those in reduction of premiums). Give tables and rates of interest, viz:			
Retirement Annuity—3½% Compound Interest	$	84,960.00	
American Experience 3½%		13,650.37	
American Annuitants 4%		37,194.49	
			135,804.86
Total			$9,608,882.86
6. Deduct net value of risks of this company reinsured in other solvent companies			141,761.00
			$9,467,121.86
7. Net Reserve			$9,467,121.86
8. Extra reserve for total and permanent disability benefits, $108,347.16; and for additional accidental death benefits, $13,920.13, included in life policies			122,267.29
9. Present value of amounts not yet due on supplementary contracts *not* involving life contingencies computed by the Actuary			118,063.52

*State definitely the dates of issue and class of policies covered by each basis of valuation.

RESPONDENT'S EXTIBIT "C" (Cont.)

(Page 5)

10.	Present value of amounts incurred but not yet due for total and permanent disability benefits		124,875.42
11.	Liability on policies canceled and not included in "net reserve" upon which a surrender value may be demanded		—
12.	Claims for Death Losses due and unpaid	$	
13.	Claims for Death Losses in process of adjustment or adjusted and not due	38,349.00	
14.	Claims for Death Losses reported for which no proofs have been received		
15.	Reserve for net Death Losses incurred but unreported	2,500.00	
16.	Claims for Matured Endowments due and unpaid	2,976.00	
17.	Claims for Death Losses and other Policy Claims resisted	—	
18.	Claims for total and permanent disability benefits, $7,881.24; and for additional accidental death benefits, $, including $ resisted	7,881.24	
19.	Due and unpaid on Annuity Claims involving life contingencies		
20.	Total Policy Claims		51,706.24
21.	Due and unpaid on supplementary contracts *not* involving life contingencies		229.83
22.	Dividends left with the company to accumulate at interest, and accrued interest thereon		363,880.23
23.	Premiums paid in advance, including surrender values so applied		64,958.81
24.	Unearned interest and rent paid in advance		63,469.08
25.	Commissions due to agents on premium notes when paid		10,517.68
26.	Commissions to agents, due or accrued		8.45
27.	"Cost of collection" on uncollected and deferred premiums, in excess of the loading thereon		—
28.	Salaries, rents, office expenses, bills and accounts due or accrued		5,569.96
29.	Medical examiners' fees, $308.00, and legal fees, $, due or accrued		308.00
30.	Estimated amount hereafter payable for Federal, State, and other taxes based upon the business of the year of this statement		30,000.00
31.	Advances by officers or others on account of expenses of organization or otherwise		—
32.	Borrowed money, $, and interest thereon $		—
	Investment Reserves		
33.	~~Unpaid dividends to stockholders~~		50,000.00
34.	Dividends or other profits due policyholders, including those contingent on payment of outstanding and deferred premiums		26,844.46
35.	Dividends declared on or apportioned to *annual dividend* policies payable to policyholders to and including (month) December (day) 31 1933, whether contingent upon the payment of renewal premiums or otherwise		281,273.00
36.	Dividends declared on or apportioned to *deferred dividend* policies payable to policyholders to and including (month) (day) 19		—
37.	Amounts set apart, apportioned, provisionally ascertained, calculated, declared, or held awaiting apportionment upon *deferred dividend* policies, not included in Item 36		—
38.	Reserve, special, or surplus funds not included above (give items and amounts separately, and state for what purpose each of said funds is held):		
39.	Reserve for Contingencies		190,000.00
40.	Additional ((Deficiency) Reserves for disability		51,964.51
41.			
42.	All other liabilities (give items and amounts):		
43.	Proceeds held in trust with accrued interest thereon		262,560.02
44.	Reinsurance premiums due and unpaid		5,344.39
45.	Suspense Items		1,314.50
46.			$11,292,277.25
47.	Capital stock		—
48.	Unassigned funds (surplus)		646,381.22
49.	Total		$11,938,658.47

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The foregoing evidence is all of the material evidence adduced at the hearing before the United States Board of Tax Appeals, and the [110] same is approved by the undersigned, J. P. Wenchel, Chief Counsel, Bureau of Internal Revenue, as attorney for the Commissioner of Internal Revenue.

(Signed) J. P. WENCHEL
RLW
Chief Counsel,
Bureau of Internal Revenue.

The foregoing is all of the material evidence adduced at the hearing before the United States Board of Tax Appeals, and the same is approved by the undersigned, as attorney for the respondent on review.

(Sgd.) WM. MARSHALL BULLITT
Attorney for Respondent on
Review.

Approved and ordered filed this 19th day of Sept., 1939.

(s) C. R. ARUNDELL
Member.

[Endorsed]: U. S. B. T. A. Lodged Sept. 19, 1939. Filed Sept. 19, 1939. [111]

In the United States Circuit Court of Appeals for the Ninth Circuit.

[Title of Cause—Docket Nos. 85182 and 88299.]

AMENDED DESIGNATION OF CONTENTS OF RECORD ON REVIEW

To the Clerk of the United States Board of Tax Appeals:

Now comes Guy T. Helvering, Commissioner of Internal Revenue, the petitioner on review herein, by and through his attorneys, Samuel O. Clark, Jr., Assistant Attorney General, and J. P. Wenchel, Chief Counsel, Bureau of Internal Revenue, and for the purpose of the review which he, the said petitioner on review, has heretofore taken to the United States Circuit Court of Appeals for the Ninth Circuit, hereby designates for inclusion in the record on review the following:

1. Docket entries of the proceedings before the Board.
2. Pleadings before the Board,
   (a) Petitions, including annexed copies of deficiency notices,
   (b) Answers,
   (c) Concessions of issues made by taxpayer (Tr. 3).
3. Findings of fact and opinion, entered January 4, 1939.
4. Decisions entered June 12, 1939.
5. Petition for review, together with proof of service of notice of filing petition for review

and of service of a copy of petition for review. [123]

6. Statement of evidence, including taxpayer's Exhibits 9 and 10 and page 5 of each of Commissioner's Exhibits A, B and C.
7. Order enlarging time for the preparation of the evidence and for the transmission and delivery of the record (not included in record.)
8. This designation of contents of record on review.

Wherefore, it is requested that a copy of the record as above designated be prepared and transmitted to the United States Circuit Court of Appeals for the Ninth Circuit in accordance with the rules of said Court.

(Sgd) SAMUEL O. CLARK, JR.
Assistant Attorney General.

(Signed) J. P. WENCHEL
RLW
Chief Counsel,
Bureau of Internal Revenue.

Service of a copy of the within designation of contents of record on review is hereby admitted and the contents so designated agreed to this 18th day of September, 1939.

Sgd. WM. MARSHALL BULLITT
Attorney for Respondent on Review.

[Endorsed]: U. S. B. T. A. Filed Sept. 19, 1939. [124]

[Title of Board and Cause.]

CERTIFICATE

I, B. D. Gamble, clerk of the U. S. Board of Tax Appeals, do hereby certify that the foregoing pages, 1 to 124, inclusive, contain and are a true copy of the transcript of record, papers, and proceedings on file and of record in my office as called for by the Praecipe in the appeal (or appeals) as above numbered and entitled.

In testimony whereof, I hereunto set my hand and affix the seal of the United States Board of Tax Appeals, at Washington, in the District of Columbia, this 27th day of September, 1939.

[Seal] B. D. GAMBLE,
Clerk,
United States Board of Tax Appeals.

[Endorsed]: No. 9318. United States Circuit Court of Appeals for the Ninth Circuit. Commissioner of Internal Revenue, Petitioner, vs. Oregon Mutual Life Insurance Company, Respondent. Transcript of the Record. Upon Petition to Review a Decision of the United States Board of Tax Appeals.

Filed, October 2, 1939.

PAUL P. O'BRIEN,
Clerk of the United States Circuit Court of Appeals for the Ninth Circuit.

In the United States Circuit Court of Appeals for the Ninth Circuit.

No. 9318

COMMISSIONER OF INTERNAL REVENUE,
Petitioner,

v.

OREGON MUTUAL LIFE INSURANCE COMPANY,
Respondent.

On Petition for Review of Decision of the United States Board of Tax Appeals

STATEMENT OF POINTS

Comes now the petitioner above named by Samuel O. Clark, Jr., Assistant Attorney General of the United States, his attorney, and complying with the rules of this Court submits the following statement of points upon which petitioner relies in this case:

1. The United States Board of Tax Appeals erred in holding and deciding that the "Extra reserve for total and permanent disability benefits" maintained by the taxpayer at the beginning and end of each of the calendar years 1933 and 1934 constituted a "reserve fund required by law" within the meaning of Section 203 (a) (2) of the Revenue Acts of 1932 and 1934.

2. The United States Board of Tax Appeals erred in holding and deciding that the reserve en-

titled "Present value of amounts incurred but not yet due for total and permanent disability benefits" and maintained by the taxpayer at the beginning and end of each of the calendar years 1933 and 1934 constituted a "reserve fund required by law" within the meaning of Section 203 (a) (2) of the Revenue Acts of 1932 and 1934.

3. The United States Board of Tax Appeals erred in holding and deciding that the taxpayer's additional "active life" and "disabled life" reserves formed or constituted a proper basis for computing the deductions allowed by Section 203 (a) (2) of the Revenue Acts of 1932 and 1934.

4. The United States Board of Tax Appeals erred in entering its final order of redetermination that there is an overpayment of income tax for the year 1933 in the amount of $201.61.

5. The United States Board of Tax Appeals erred in entering its final order of redetermination that there is a deficiency in income tax for the year 1934 in the amount of $1,333.48.

6. The United States Board of Tax Appeals erred in failing and refusing to enter a final order of redetermination that there is a deficiency in income tax for the year 1933 in the amount of $996.30.

7. The United States Board of Tax Appeals erred in failing and refusing to enter a final order of redetermination that there is a deficiency in in-

come tax for the year 1934 in the amount of $2,626.98.

8. The United States Board of Tax Appeals erred in that its decision is not supported by the evidence and is contrary to law.

9. The United States Board of Tax Appeals erred in that the evidence does not support its findings of fact.

10. The United States Board of Tax Appeals erred in that the facts as found by it do not support its opinion and decisions.

Respectfully submitted
SAMUEL O. CLARK, JR.,
Assistant Attorney General
Attorney for Petitioner

[Endorsed]: Filed Oct. 9, 1939. Paul P. O'Brien, Clerk.

[Title of Circuit Court of Appeals and Cause.]

DESIGNATION OF PORTIONS OF THE RECORD TO BE PRINTED

Comes now the petitioner above named by Samuel O. Clark, Jr., Assistant Attorney General of the United States, his attorney, and complying with the rules of this Court, pertaining to the designation of the portion of the record to be printed, states that he relies upon the entire record certified by the Clerk of the Board of Tax Appeals to this Court,

and directs that said record so certified be printed as the record on appeal.

Respectfully submitted,
SAMUEL O. CLARK, JR.
Assistant Attorney General
Attorney for Petitioner

[Endorsed]: Filed Oct. 28, 1939. Paul P. O'Brien, Clerk.

UNITED STATES CIRCUIT COURT OF APPEALS FOR THE NINTH CIRCUIT

No. 9318

COMMISSIONER OF INTERNAL REVENUE, PETITIONER

vs.

OREGON MUTUAL LIFE INSURANCE COMPANY, RESPONDENT

Upon Petition to Review Decisions of the United States Board of Tax Appeals

Proceedings had in the United States Circuit Court of Appeals for the Ninth Circuit

United States Circuit Court of Appeals for the Ninth Circuit

Excerpt from Proceedings of Wednesday, April 3, 1940

Before GARRECHT, HANEY, and HEALY, Circuit Judges

Order of submission

Ordered above cause argued by Mr. Edward H. Horton, Special Assistant to the Attorney General, counsel for petitioner, and by Mr. Wm. Marshall Bullitt, counsel for respondent, and submitted to the court for consideration and decision.

United States Circuit Court of Appeals for the Ninth Circuit

Excerpt from Proceedings of Wednesday, June 12, 1940

Before GARRECHT, HANEY, and HEALY, Circuit Judges

Order directing filing of opinion and filing and recording of judgment

By direction of the Court, ordered that the typewritten opinion this day rendered by this court in above cause be forthwith filed by the clerk, and that a judgment be filed and recorded in the minutes of this court in accordance with the opinion rendered.

270638—40

In the United States Circuit Court of Appeals for the Ninth Circuit

COMMISSIONER OF INTERNAL REVENUE, PETITIONER

vs.

OREGON MUTUAL LIFE INSURANCE COMPANY, RESPONDENT

No. 9318. June 12, 1940

Upon Petition to Review a Decision of the United States Board of Tax Appeals

BEFORE GARRECHT, HANEY, and HEALY, Circuit Judges

HEALY, Circuit Judge: This is a proceeding to review a decision of the Board of Tax Appeals.

The taxpayer is a mutual life insurance company organized under the laws of Oregon. The question presented is whether its reserves for permanent and total disability benefits, maintained as against disability provisions of its combined life, health, and accident policies, are "reserve funds required by law," within the meaning of section 203 (a) (2) of the Revenue Acts of 1932 and 1934 permitting a deduction from gross income of a percentage of the mean of such funds held at the beginning and end of the taxable year.

The taxpayer writes annuity contracts and ordinary life insurance policies, including policies providing for double indemnity. It writes also policies of combined life, health, and accident insurance. It issues no separate disability contracts. All policies are based on the level premium plan.

In the tax years in question (1933 and 1934) the taxpayer's outstanding policies were about equally divided between disability contracts (combined life, health, and accident) and those providing for no disability benefits. In addition to the payment of death benefits, its disability policies provide that upon proof of the total and permanent disability of the insured before age 60, the company will waive the payment of premiums and pay the insured, during the period of disability, an annual sum equal to one-tenth of the face value of the policy.

In order to meet its liabilities under the disability provisions of this type of policy, the taxpayer carries two reserves which for convenience are referred to as "active life reserve" and "disabled life reserve." The "active life reserve" is held to meet contingent liabilities under policies whose holders have not become disabled. As an active life becomes disabled, the taxpayer creates out of the active life reserve its "disabled life reserve," to enable it to pay disability benefits during the continuance thereof. There is no duplication in the two reserves. The amount of reserves necessary to cover future liabilities under the disability provisions is determined by reference to combined mortality and disability tables.

During the years in question the mean of the reserves maintained by the taxpayer for death benefits only, on both nondisability and disability policies, was in excess of $9,500,000. The right to a deduction based on these reserves is not disputed.

In the two years, while being somewhat larger during the second, the mean of the reserves for disability benefits was roughly $110,000 for active lives, and somewhat in excess of that sum for disabled lives. It is conceded that these reserves are required by law. The Commissioner urges that they were not held against life insurance risks and therefore could not properly be used as a basis for deduction. The Board held the contrary.

In so holding the Board relied upon its previous decisions in Equitable Life Assur. Soc. v. Commissioner, 33 B. T. A. 708; Monarch Life Ins. Co. v. Commissioner, 38 B. T. A. 73; and Pan-American Life Ins. Co. v. Commissioner, 38 B. T. A. 1430, recently affirmed by the Fifth Circuit in * * * F. (2d) * * *, decided April 20, 1940. Opposed to this view is a decision of the Court of Claims in New World Life Ins. Co. v. United States, 26 F. Supp. 444, cert. granted, May 20, 1940.

The pertinent revenue acts impose a tax upon the net income of life insurance companies, Sec. 203 (b) (1).[1] Gross income of such companies is the amount of income received during the taxable year from interest, dividends, and rents. Sec. 202 (a). Net income is defined by Sec. 203 as the gross income less certain deductions, the pertinent deduction being that prescribed by subdivision (a) (2) of the section, namely, "an amount equal to 4 per centum of the mean of the reserve funds required by law and held at the beginning and end of the taxable year, except that in the case of any such reserve fund which is computed at a lower interest assumption rate, the rate of 3¾ per centum shall be substituted for 4 per centum * * *"[2]

It is settled that the words "reserve funds," as here used, do not embrace mere solvency reserves.[3] "As the act does not permit corpora-

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[1] Citations refer to the Revenue Act of 1932, c. 209, 47 Stat. 169, 223–227, 26 U. S. C. A., Int. Rev. Acts. The corresponding provisions of the Revenue Act of 1934, also involved, are identical with those of the 1932 act.

[2] Life insurance companies, whether stock or mutual, are taxable on their investment income only. Prior to the Revenue Act of 1921 all insurance companies were taxable as ordinary corporations, hence their gross income included premium income as well as income from investments. However, all companies were allowed a deduction (similar to that now granted mutual companies other than life) of the "net addition required by law to be made within the taxable year to reserve funds." For a discussion of the changes made by the 1921 Act in the methods of taxing insurance companies, see N. Y. Life Ins. Co. v. Bowers, 283 U. S. 242; Natl. Life Ins. Co. v. United States, 277 U. S. 508, 522 (dissenting opinion); Mass. Mutual Life Ins. Co. v. United States (Ct. Cl.), 56 F. (2d) 897, 901; Commissioner v. Pan-American Life Ins. Co., 5 Cir., * * * F. (2d) * * *, decided April 20, 1940.

[3] McCoach v. tIns. Co. of No. America, 244 U. S. 585 (reserve held by a fire and marine insurance company to cover accrued but unsettled claims); Md. Casualty Co. v. U. S., 251 U. S. 342 (reserve for taxes, salaries, reinsurance, and unpaid brokerage); U. S. v. Boston Ins. Co., 269 U. S. 197 (reserve held by fire and marine insurance company to cover accrued but unsettled claims); N. Y. Life Ins. Co. v. Edwards, 271 U. S. 109 (reserve to meet death losses, accrued but unreported); Helvering v. Inter-Mountain Life Ins. Co., 294 U. S. 686 (reserve against matured, unsurrendered, and unpaid coupons left with company to accumulate at interest); Helvering v. Ill. Life Ins. Co., 299 U. S. 88 (survivorship investment funds). See also Mass. Mut. Life Ins. Co. v. U. S. (Ct. Cl.), 56 F. (2d) 897 (reserves for dividends left with company to accumulate at interest and accrued interest thereon, for dividends or other profits due policyholders, including those contingent upon payment of outstanding and deferred premiums: for dividends declared on or apportioned to annual dividend policies, whether or not contingent upon payment of renewal premiums; and for policy claims—paid-for basis); Continental Assur. Co. v. U. S. (Ct. Cl.), 8 F. Supp. 474 (reserve against matured, unsurrendered, and unpaid coupons left with company to accumulate at interest).

tions other than insurance companies to make deductions of the kind here under consideration, 'reserve funds' may not reasonably be deemed to include values that do not directly pertain to insurance." Helvering v. Inter-Mountain Life Ins. Co., 294 U. S. 686, 690.

Although it is clear that the statute refers to technical insurance reserves only—that is, reserves computed upon the basis of probability tables and an assumed rate of interest—the precise question before us is whether the deduction is confined to technical life reserves. We think the question has not been answered in the decisions of the Supreme Court.

Considerable light is thrown on the problem by the provisions of Sec. 201 (a) of the act. A life insurance company is there defined as "an insurance company engaged in the business of issuing life insurance and annuity contracts (including contracts of combined life, health, and accident insurance), the reserve funds of which held for the fulfillment of such contracts comprise more than 50 per centum of its total reserve funds."

As applied, for example, to this taxpayer, the Commissioner construes the statute as meaning that the determinative ratio is between the nondisability elements of the company's reserves and a total comprising these plus the reserves held for the fulfillment of the disability features of its combined policies.

The statute, however, says that the reserve funds which are to be compared with the total shall comprise reserves held "for the fulfillment of such contracts"—namely, the contracts enumerated. These expressly include "contracts of combined life, health, and accident, insurance." For the purpose of classification, the disability reserves held against the combined policies are treated by the act as life insurance reserves. Neither the Commissioner nor the court is at liberty to disregard the plain language of the section on the theory that the classification lacks philosophical basis. It must be borne in mind that we are dealing with a statute, not with an actuarial problem.

Since the words "reserve funds," as used in the classification statute, embrace disability reserves held against combined life and disability policies, we see no persuasive reason to believe that they should be held to mean less than that when used in Sec. 203 (a) (2). Had Congress intended a narrower application of the term for the purpose of the deduction, presumably it would have said so in apt language. The words "reserve funds required by law," used in the latter section, unquestionably refer to technical insurance reserves. But we think, as in Sec. 201 (a), they comprehend reserves held to meet a life insurance company's obligations dependent either upon life contingencies or upon life and disability contingencies. The provision contained in the last sentence of Sec. 203 (a) (2) tends strongly to support this view.[4]

[4] "Life insurance companies issuing policies covering life, health, and accident insurance combined in one policy issued on the weekly premium payment plan, continuing for life and not subject to cancellation, shall be allowed, in addition to the above, a deduction of 3% per centum of the mean of such reserve funds (not required by law) held at the beginning and end of the taxable year, as the Commissioner finds to be necessary for the protection of the holders of such policies only."

As was pointed out in the opinion of the Fifth Circuit in Pan-American Life Insurance Co. v. Commissioner, supra, the construction given the act by the Board and here approved is supported by thirteen years of administrative practice involving five successive revenue acts.

Affirmed.

[Endorsed:] Opinion. Filed June 12, 1940. Paul P. O'Brien, Clerk.

Judgment

United States Circuit Court of Appeals for the Ninth Circuit

No. 9318

COMMISSIONER OF INTERNAL REVENUE, PETITIONER

vs.

OREGON MUTUAL LIFE INSURANCE COMPANY, RESPONDENT

Upon Petition to Review Decisions of the United States Board of Tax Appeals

This cause came on to be heard on the Transcript of Record from the United States Board of Tax Appeals and was duly submitted.

On Consideration Whereof, it is now here ordered and adjudged by this Court, that the Decisions of the said Board of Tax Appeals in this Cause be, and hereby are affirmed.

[Endorsed:] Judgment. Filed and entered June 12, 1940. Paul P. O'Brien, Clerk.

United States Circuit Court of Appeals for the Ninth Circuit

No. 9318

COMMISSIONER OF INTERNAL REVENUE, PETITIONER

vs.

OREGON MUTUAL LIFE INSURANCE COMPANY, RESPONDENT

Certificate of clerk, U. S. Circuit Court of Appeals for the Ninth Circuit, to record certified under rule 38 of the revised rules of the Supreme Court of the United States

I, Paul P. O'Brien, as Clerk of the United States Circuit Court of Appeals for the Ninth Circuit, do hereby certify the foregoing Two Hundred (200) pages, numbered from and including 1 to and including 200, to be a full, true and correct copy of the entire record of the above-entitled case in the said Circuit Court of Appeals, made pursuant to request of Honorable Francis Biddle, Solicitor General of the United States, counsel for the petitioner, and certified under

Rule 38 of the Revised Rules of the Supreme Court of the United States, as the originals thereof remain on file and appear of record in my office.

Attest my hand and the seal of the said the United States Circuit Court of Appeals for the Ninth Circuit, at the City of San Francisco, in the State of California, this 17th day of October A. D. 1940.

[SEAL] PAUL P. O'BRIEN, *Clerk.*

Order extending the time in which to file a petition for a writ of certiorari

In view of the considerations set forth in the attached Motion, it is hereby granted and the time in which to file a petition for a writ of certiorari in this case is hereby extended for a period of 60 days from September 12, 1940.

Ordered this 22d of August 1940.

HUGO L. BLACK,
Associate Justice of the Supreme Court of the United States.

U. S. GOVERNMENT PRINTING OFFICE: 1940

Supreme Court of the United States

Order allowing certiorari

Filed November 12, 1940

The petition herein for a writ of certiorari to the United States Circuit Court of Appeals for the Ninth Circuit is granted, and the case is assigned for argument immediately following No. 264.

And it is further ordered that the duly certified copy of the transcript of the proceedings below which accompanied the petition shall be treated as though filed in response to such writ.

U. S. GOVERNMENT PRINTING OFFICE: 1940